Dental Assisting

CIP Code:

McCann Technical School
70 Hodges Cross Road
North Adams, MA  01247

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Program Coordinator/ Instructor
December 2, 2010
Program Philosophy

The educational philosophy of McCann Technical School is to create a learning organization of school and community leaders, teachers, parents, and students that sustains a culture of continuous improvement through the use of student assessment and program evaluation. School community members will create a learning environment that motivates and actively engages all students in mastering rigorous academic and technical curricula. Accept nothing less than accountable, high quality academic and technical student performance. Actively participate in professional development activities that advance professional and organizational goals, develop educational leadership, and honor accomplishments. Provide academic and career/technical education that is aligned to state and national standards and relevant to business and industry. Strengthen partnerships and alliances with business, industry, and higher education. The goal of the Dental Assisting Program at McCann Technical School is to prepare entry-level dental assistants in the cognitive (knowledge), psychomotor (skill), and affective (behaviors) learning domains.

Program Description

Dental Assistants are members of the dental health team who perform a wide variety of tasks requiring both interpersonal and technical skills. Under supervision of a dentist, the dental assistant prepares all instruments, materials, and equipment used in dental procedures, provides oral care instruction to patients and performs office administration tasks. Most dental assistants work in a private general practice or a dental specialty office, but employment opportunities also exist in insurance companies and public health or hospital based clinics.

The Dental Assisting program is accredited by the Commission on Dental Accreditation of the American Dental Association. The Dental Assisting National Board (DANB) is the nationally recognized premier certification and credentialing agency for dental assistants. The DANB examinations are required or recognized as meeting regulatory requirements in more than thirty states. McCann graduates are eligible to sit for the Certified Dental Assistant (CDA) examination as administered by the Dental Assisting National Board.

The Dental Assisting program begins in September with graduation in early June. The first semester includes Dental Assisting I, Dental Science I, Dental Radiology, Clinical Science I, Practice Management I, Biomedical Sciences, and Laboratory Procedures. The spring semester includes Dental Assisting II, Dental Science II, and Clinical Science II, and Advanced Functions. Students will also complete a 350 hour externship before graduation. There is no remuneration for the externship.
Program Syllabus

The individual course syllabi are as follows:

Course Syllabus

FALL SEMESTER

NAME OF COURSE: DA 101 Dental Assisting I
(General Dentistry)

CREDITS: 60 Hours (Didactic) 50 Hours (Laboratory)

METHODOLGY: Lecture and discussion, Demonstrations, Clinical practice, and power point presentations.

INSTRUCTOR: Michelle Racette, RDH

COURSE DESCRIPTION:
This course is designed to provide the learner in the fundamental duties of a dental assistant as will as in auxiliary and managerial duties of a dental office.

TEXT:
1. Dental Assisting, A Comprehensive Approach, Phinney & Halstead
   3rd Edition, Thomson Delmar Learning

OUTCOME MEASUREMENTS:
Tests 40%
Practical Tests 40%
Clinical Performance 10%
Written assignments 10%

ATTENDANCE:
Attendance in all classes is mandatory.
COURSE CONTENT:

*Introduction to Dental Assisting as a Profession*
Phinney & Halstead, Chapter 1 pages 3-8
LEARNING EXPERIENCES:
This is an introduction to the history of dentistry, later progress in dentistry, progress of dentistry in the United States, and education and organized dentistry.
1 hour (Didactic)

*Members of the Dental Healthcare Team*
Phinney & Halstead, Chapter 1 pages 8-13
LEARNING EXPERIENCES:
The student will gain knowledge of describing the career skills performed by the dental team including the dentist dental hygienist, dental laboratory technicians, dental assistants, and other members of the dental team.
2 hours (Didactic)

*Professional and Safety Heath Organizations*
Phinney & Halstead, Chapter 11 pages 201-203
LEARNING EXPERIENCES:
The student will be able to identify professional organizations including the ADA, ADAA, DANB, ADHA, ADA and safety and health organizations including OSHA, CDC, OSAP, EPA, and the FDA. Regulations and recommendations for infection control in the dental practice, and OSHA-mandated training for dental office employees are also taught in this section.
2 hours (Didactic)

*Overview of the Dental Office*
Phinney & Halstead, Chapter 17 pages 321-325
LEARNING EXPERIENCES:
The student will be taught about the dental office design including the reception room, the reception desk and business office, sterilizing area, dental office laboratory, x-ray processing room, radiography room, and optional rooms in the dental office.
2 hours (Didactic)

*Activity Zones & Ergonomics*
Phinney & Halstead, Chapter 17 pages 335-337; 338-341
LEARNING EXPERIENCES:
The student will learn the importance of activity zones and classification of motion as well as ergonomics for the operator and ergonomics for the assistant.
2 hours (Didactic) 2 hours (laboratory)

*Dental Treatment Room Equipment and Delivery Systems*
Phinney & Halstead, Chapter 17 pages 325-335
LEARNING EXPERIENCES:
The student will be introduced to, and learn the functions of, the dental treatment room and dental equipment including the dental chair, the dental unit, dental stools, operating light, cabinetry, sink, dental x-ray unit, small equipment found in the treatment room, and dental air compressor and central vacuum system.
2 hours (Didactic)

**Instrument Transfer**
Phinney & Halstead, Chapter 18 pages 348-359
LEARNING EXPERIENCES:
This section educates the student on instrument transfer including transfer hand, instrument grasps, instrument transfer methods, and instrument transfer modifications.
5 hours (Didactic) 4 hours (laboratory)

**Dental Instruments and Accessories**
Phinney & Halstead, Chapter 19 pages 365-391
LEARNING EXPERIENCES:
The student will be trained in instruments used for basic chairside procedures including basic structural parts of dental hand instruments, basic classification of dental instruments, cutting instruments, non-cutting instruments, miscellaneous instruments, and instrument care, maintenance, and sterilization; Dental rotary instruments including parts of the bur, cutting burs, diamond burs, finishing burs, surgical burs, laboratory burs, and fissurotomy burs; Abrasives including mandrels, discs, stones, rubber wheels, rubber pints, sterilization, maintenance, and storage; and dental handpieces including the parts of a dental handpiece, high-speed handpiece, low-speed handpiece, electric handpiece, maintenance and sterilization of dental handpieces.
20 hours (Didactic) 24 hours (Laboratory)

**Moisture Control Techniques**
Phinney & Halstead, Chapter 18 pages 356-364; Chapter 34 pages 813-829
LEARNING EXPERIENCES:
The student will describe and demonstrate ways of maintaining the operating field including lighting, the evacuation system, saliva ejector, air-water syringe, retraction of tissues; and techniques for moisture control and isolation including cotton rolls and dry angles.
2 hours (Didactic) 2 hours (laboratory)

**Tooth Numbering Systems**
Phinney & Halstead, Chapter 14 pages 263-266
LEARNING EXPERIENCES:
The student will identify dental charts and numbering systems including universal/national system for numbering, Federation Dentaire Internationale (FDI) system for numbering, and Palmer system for numbering.
2 hours (Didactic)
Components of a Dental Examination
Phinney & Halstead, Chapter 13 pages 251-253
LEARNING EXPERIENCES:
The student will perform or assist in an oral examination of the facial area, TMJ, lips, tongue, oral mucosa, floor of mouth, palate, occlusion and teeth to provide a record of the patient's overall dental health and to detect any disease or abnormal conditions that may be present. The exam should include a visual examination, palpation of the neck anal tissues and radiographs.
2 hours (Didactic) 2 hours (laboratory)

Assistant's Role in Recording a Dental Examination, Color Coding, Charting Abbreviations, and Charting Symbols
Phinney & Halstead, Chapter 14 pages 267-280
LEARNING EXPERIENCES:
The student will define G.V. Black's cavity classifications including Class I, Class II, Class III, Class IV, Class V, and Class VI; they will also list common abbreviations of tooth surfaces; describe basic charting terms; explain charting color indications and identify charting symbols.
6 hours (Didactic) 8 hours (Laboratory)

Anesthesia
Phinney & Halstead Chapter 20 pages 394-407
The student will explain various topical anesthetics including types, placement, classifications, and reactions. They will also explain different local anesthetics including local anesthetic agents, vasoconstrictors, possible complications of local anesthetics, types of injections, injection sites, and types of anesthetics, syringes, and needles.
3 hours (Didactic) 5 hours (Laboratory)

Postoperative Instructions for the Patient
Phinney & Halstead, Chapter 20 pages 395-396; Chapter 25 pages 539, 545, 549,553; Chapter 27 pages 611, 614; Chapter 29 page 671; Chapter 32 page 760.
LEARNING EXPERIENCES:
The student will provide the patient with postoperative instructions after the completion of local anesthetic, operative procedures, extraction, multiple extractions, dentures, implants, orthodontics, and periodontic surgery.
3 hours (Didactic)

Health Insurance Portability and Accountability Act
Phinney & Halstead, Chapter 3 pages 33-38
This section identifies the law, transactions and code sets, what HIPPA encompasses, HIPPA compliance, protected health information, security rule, office manual, staff training and review, enforcement of HIPPA, federal civil and criminal penalties for violations of patient’s right to privacy and HIPPA challenge.
2 hours (Didactic)

Advanced Chairside Functions
Phinney & Halstead Chapter 34 pages 813-838
The student will be trained in the use of the dental dam including advantages of
dental dam use, contraindications to dental dam isolation, materials and
equipment, preparation before dental dam placement, placement and removal
procedures for dental dam, dental dam for pediatric patients and alternatives to
full dental dam placement. They will also become skilled at the use of the matrix
and wedge including matrices, wedge types and placement, Tofflemire matrix
parts, matrix bands, and automatrix, plastic strip matrix and sectional matrix
systems.
4 Hours (Didactic) 5 hours (Laboratory)

CONTENT:
1. The Profession of Dental Assisting
   a. Introduction
   b. History of Dentistry
   c. Later Progress of Dentistry
   d. Progress of Dentistry in the United States
   e. Education and Organized Dentistry
      • American Dental Association
   f. The Dental Team
      • Dentists
         - Dental Specialists
      • Dental Hygienists
         - American Dental Hygienists’ Association
      • Dental Laboratory Technicians
      • Dental Assistants
         - Certified Dental Assistants
         - Dental Receptionists/Dental Practice Management Assistants
         - American Dental Assistants Association
      • Other Members of the Dental Team

QUIZ

2. Professional and Safety Health Organizations
   a. Rationales and Regulations of Infection Control
      • American Dental Association (ADA)
      • Centers for Disease Control and Prevention (CDC)
      • Occupational Safety and Health Administration (OSHA)
      • The Food and Drug Administration (FDA)
      • Environmental Protection Agency (EPA)
      • Organization for Safety and Asepsis Procedures (OSAP)
3. Overview of the Dental Office
   a. The Reception Room
   b. The Reception Desk and Business Office
   c. Sterilizing Area
   d. Dental Office Laboratory
   e. X-ray Processing Room
   f. Radiography Room
   g. Optional Rooms in the Dental Office
      • Dentist’s Private Office
      • Staff Lounge
      • Patient Education Area

4. Activity Zones and Ergonomics
   a. Activity Zones
   b. Classifications of Motion
   c. Ergonomics for the Operator
   d. Ergonomics for the Assistant

5. The Treatment Rooms and Dental Equipment
   a. The Dental Chair
   b. The Dental Unit
      • Mobile Carts
      • Air-Water Syringe
      • Dental Handpieces
      • Ultrasonic Scaler
      • Saliva Ejector
      • High Volume Evacuation (HVE)
   c. Dental Stools
      • Operator’s Stool
      • Dental Assistant’s Stool
   d. Operating Light
   e. Cabinetry
   f. Sink
   g. Dental X-ray Unit
   h. Small Equipment Found in the Treatment Room
      • X-ray Viewbox
      • Dental Curing Light
      • Curing Light Radiometer
• Amalgamator
• Communication System
• Computerized Equipment
  i. Dental Air Compressor and Central Vacuum System

TEST

6. Instrument Transfer
   a. Transfer Hand
   b. Instrument Grasps
      • Pen Grasp
      • Modified Pen Grasp
      • Palm Grasp
      • Palm-Thumb Grasp
      • Reverse Palm-Thumb Grasp
   c. Instrument Transfer Methods
      • Eight Basic Rules for Instrument Transfer
      • One-Handed Transfer
      • Two-handed Transfer
   d. Instrument Transfer Modifications
      • The Mirror and Explorer Transfer
      • The Cotton Pliers Transfer
      • Scissors Transfer
      • Dental Handpieces
      • Air-Water Syringe Transfer
      • Miscellaneous Items

TEST
PRACTICAL EXAMINATION

7. Instruments for Basic Chairside Procedures
   a. Basic Structural Parts of Dental Hand Instruments
      • The Working End of an Instrument
      • The Handle (Shaft)
      • The Shank
   b. Basic Classification of Dental Instruments
      • Number of Working Ends
      • Instruments Classified by Function
      • Manufacturer’s Number
      • Black’s Formula
   c. Cutting Instruments
      • Chisels
      • Hatchets
      • Hoes
      • Gingival Margin Trimmers
      • Angle Formers
- Excavators
d. Non-Cutting Instruments
  - Basic Examination Instruments
  - Plastic Filling Instruments
  - Composite Instruments
  - Amalgam Carriers
  - Amalgam Condensers (Pluggers)
  - Carvers
  - Burnishers
  - Files
  - Finishing Knives
e. Miscellaneous Instruments
  - Spatulas
  - Articulating Forceps
  - Scissors
f. Instrument Care, Maintenance, and Sterilization

QUIZ
TEST

8. Dental Rotary Instruments and Tray Systems
  a. Dental Rotary Instrument
     - Parts of the Bur
       - Shank
       - Neck
       - Head
     - Cutting Burs
     - Diamond Burs
     - Finishing Burs
     - Surgical Burs
     - Laboratory Burs
     - Fissurotomy Burs
  b. Abrasives
     - Mandrels
     - Discs
       - Sandpaper Discs
       - Diamond Discs
       - Carborundum Discs
     - Stones
     - Rubber Wheels
     - Rubber Points
     - Sterilization, Maintenance, and Storage
       - Bur Blocks
c. Dental Handpieces
   • The Parts of the Dental Handpiece
   • High-Speed Handpiece
   • Low-Speed Handpiece
   • Electric Handpiece
   • Maintenance and Sterilization of Dental Handpieces
   • Air Abrasion Unit
   • Microetcher
     - Microetcher Abrasives
     - Operation, Safety, and Sterilization

d. Tray Systems
   • Positioning on Trays
   • Cassette System for Instruments
   • Color-Coding Systems

QUIZ
TEST

9. Maintaining the Operating Field
   a. Lighting
   b. The Evacuation System
      • Parts of the High-Volume Evacuation System
      • Grasps for Oral Evacuation
      • General Guidelines for Oral Evacuation Tip Placement
   c. Saliva Ejector
      • Parts of the Saliva Ejector
   d. The Air-Water Syringe
      • Parts of the Air-Water Syringe
      • Guidelines for Use of the Air-Water Syringe
   e. Retraction of Tissues
      • Mouth Props
   f. Techniques for Moisture Control and Isolation
      • Cotton Rolls
      • Dry Angles

TEST
PRACTICAL EXAMINATION

10. Numbering Systems
    a. Universal/National System for Numbering
    b. Federation Dentaire International (FDI) System for Numbering
    c. Palmer System for Numbering

TEST

11. Preparation for patient care
a. Clinical Evaluation
b. External Evaluation
   • Examination of the Lips
   • Examination of the External Floor of the Mouth and Cervical Lymph Nodes
   • Examination of the Temporomandibular Joint (TMJ)
c. Internal Evaluation
   • Visual Assessment
   • Palpating with the Fingers on Ventral Sides of Tongue and Floor of the Mouth
   • Examination of the Frena and upper and Lower Lips
   • Examination of the Buccal Area
   • Examination of the Palate and Posterior of the Tongue
   • Examination of the Tongue

TEST
12. Dental Charting
   a. Cavity Classifications
      • Class I
      • Class II
      • Class III
      • Class IV
      • Class V
      • Class VI
   b. Abbreviations of Tooth Surfaces
   c. Basic Charting Terms
   d. Charting Color Indications and Symbols

TEST

13. Postoperative Instructions for the Dental Patient
   a. Local Anesthesia
      • Possible Complications of Local Anesthetics
   b. Oral Surgery Procedures
      • What to Expect
      • What to Do
      • Things to Avoid
   c. Implants
   d. Orthodontics
      • Oral Hygiene Instructions
   e. Periodontics
      • Non-Surgical
      • Surgical
   f. Removable Prosthodontics
      • Partial Dentures
14. Anesthesia
   a. Topical Anesthesia
   b. Local Anesthesia
      • Local Anesthetic Agents
      - Duration
      • Vasoconstrictors
      • Possible Complications of Local Anesthesia
      • Types of Injections
      - Local Infiltration
      - Field Block Anesthesia
      - Nerve Block Anesthesia
   c. Injection sites
   d. Anesthetics, Syringes, and Needles
      • The Syringe
      - Parts of the Aspirating Syringe
      - Care and Handling of the Anesthetic Syringe
      • The Needle
      - Parts of the Needle
      - Care and Handling of Dental Needles
      - Needlestick Protection
      • The Anesthetic Cartridge
      - Parts of the Anesthetic Cartridge'
      - Color Coding of Local Anesthetic Cartridges
      - Care and Handling of Anesthetic Cartridges
      - Charting Anesthetic Administration

15. The Dental Dam
   a. Advantages to Dental Dam Use
   b. Contraindications to Dental Dam Isolation
   c. Materials and Equipment
      • Dental Dam Materials
      • Dental Dam Napkin
      • Dental Dam Frame
      • Dental Dam Punching Guides
      • Dental Dam Punch
      • Dental Dam Clamps
      • Dental Dam Forceps
• Dental Floss
• Lubricant
• Scissors
• Inverting or Tucking Instrument
• Ligatures
• Stabilizing Cord
d. Preparation Before Dental Dam Placement
  • Educating the Patient
  • Determining Area to Isolate
  • Dividing the Dental Dam
  • Punching the Dental Dam
    - Maxillary Arch
    - Mandibular Arch
    - Maxillary and Mandibular Anterior Teeth
    - Missing or Malpositioned Teeth
    - Bridgework Placement
    - Class V Restoration Placement
  • Common Errors When Punching Dental Dam
e. Placement and Removal Procedures for Dental Dam
f. Dental Dam for Pediatric Patients
  • Placing Dental Dam for Pediatric Patients
g. Alternatives to Full Dental Dam Placement

PRACTICAL EXAM TEST

16. Matrix and Wedge
  a. Matrices
  b. Wedges
    • Wedge Types
    • Wedge Placement
  c. Tofflemire Matrix
    • Parts of Tofflemire Matrix
      - Tofflemire Retainer Styles
    • Matrix bands
    • Automatrix
d. Plastic Strip Matrix
  • Crown Matrix Form
e. Sectional Matrix Systems

PRACTICAL EXAM TEST
Course Syllabus

FALL SEMESTER

NAME OF COURSE: DA101 Dental Assisting I
(Oral Health)

CREDITS: 30 hours (Didactic) 16 hours (Laboratory)

METHODOLOGY: Lecture and Discussion, Demonstration, and Instructional Aids

INSTRUCTOR: Michelle Racette, RDH

COURSE DESCRIPTION:
This course is designed to introduce the learner to the importance of oral health. This is accomplished by proper instruction in toothbrushing and flossing, the understanding of plaque, diseases caused by improper oral hygiene, and the importance of diet and nutrition.

TEXT:

OUTCOMES MEASUREMENT:
Tests 40%
Quizzes 20%
Project 10%
Final Examination 30%

ATTENDANCE:
Attendance at all classes is mandatory.

COURSE CONTENT:

Components of Preventive Dentistry
Phinney & Halstead, Chapter 4 pages 43-46

LEARNING EXPERIENCES:
Preventive dentistry including patient motivation, age characteristics, and home care is taught in this section.
6 hours (Didactic)

Plaque, Dental caries, and Periodontal Disease
Phinney & Halstead, Chapter 4 page 43
The student will understand how dental diseases occur and how preventive dentistry is effective in reducing the disease. Plaque is defined and the difference between supragingival and subgingival plaque is explained as well as the bacteria involved in the formation of plaque, dental pellicle and areas where the plaque forms most frequently.

6 hours (Didactic)

*Oral Hygiene Instruction and Patient Evaluation*
Phinney & Halstead, Chapter 4 pages 51-57
LEARNING EXPERIENCES:
The student will identify and demonstrate toothbrushes and techniques including manual toothbrushes, mechanical toothbrushes, brushing techniques for the manual toothbrush, and tongue brushing. They will also identify and demonstrate dental flossing including types of floss and hygienic care of prosthetic devices.
6 hours (Didactic) 8 hours (Laboratory)

*Fluoride*
Phinney & Halstead, Chapter 4 pages 61-66
LEARNING EXPERIENCES:
The student will describe fluoride including the history of fluoride in dentistry, fluoridation, effects of fluoride, tooth development, fluoride in dental plaque, fluoride toxicity, benefits of fluoride, forms of fluoride, topical fluoride, and fluoride rinses. The student will demonstrate fluoride application.
6 hours (Didactic) 4 hours (Laboratory)

*Oral Hygiene Aids and Methods*
Phinney & Halstead, Chapter 4 pages 46-51
LEARNING EXPERIENCES:
The student will identify and demonstrate oral hygiene aids including disclosing agents, dentifrices, mouth rinses, chewing gum, and interdental aids.
6 hours (Didactic) 4 hours (Laboratory)

**CONTENT:**
1. Preventive Dentistry
   a. Plaque Formation
   b. Patient Motivation
   c. Age Characteristics
      • Infants
      • Preschool Children
      • Ages Five through Eight
      • Ages Nine through Twelve
- Ages Thirteen through Fifteen
- Ages Sixteen through Nineteen
- Ages Nineteen through Sixty
- Sixty Plus

d. Home care

QUIZ
TEST

2. Oral Hygiene Aids
   a. Disclosing Agents
   b. Dentifrice
   c. Mouth Rinses
   d. Chewing Gum
   e. Interdental Aids

PRACTICAL EXAMINATIONS

3. Toothbrushes and Techniques
   a. Manual Toothbrushes
   b. Mechanical Toothbrushes
   c. Brushing Techniques for the Manual Toothbrush
      • Bass or Modified Bass Brushing Technique
      • Charters Brushing Technique
      • Modified Stillman Brushing Technique
      • Rolling Stroke Brushing Technique
      • Fones Technique
      • Modified Scrub
   d. Tongue Brushing

PRACTICAL EXAMINATIONS

4. Dental Flossing
   a. Types of Floss
   b. Hygienic Care of Prosthetic Devices
      • Fixed Bridges
      • Implants
      • Full and Partial Dentures
      • Orthodontic Appliances

PRACTICAL EXAMINATION

5. Oral Hygiene for Patients with Special Needs
   a. Pregnant Patients
   b. Patients with Cancer
   c. Patients with Heart Disease
d. Older Patients
   e. Additional Preventive Procedures Performed in the Dental Office

6. Fluoride
   a. History of Fluoride in Dentistry
   b. Fluoridation
   c. Effects of Fluoride
   d. Tooth Development
   e. Fluoride in Dental Plaque
   f. Fluoride Toxicity
      • Dangers Associated with Fluoride Ingestion
   g. Benefits of Fluoride
   h. Forms of Fluoride
      • Systemic
   i. Topical Fluoride
      • Topical Fluoride Application in the Dental Office
      • Advantages and Disadvantages of Fluoride Preparations
   j. Fluoride Rinses

PRACTICAL EXAMINATION

FINAL EXAMINATION
Course Syllabus

FALL SEMESTER

NAME OF COURSE: DA 101 Dental Assisting I
(Infection Control)

CREDITS: 40 hours (Didactic) 30 hours (Laboratory)

METHODOLGY: Lecture and demonstration, laboratory equipment, and discussion

INSTRUCTOR: Michelle Racette, RDH

COURSE DESCRIPTION:
This course is designed to provide the learner with accurate information in selecting the method and operation of disinfection/sterilization required of all instruments and equipment commonly used in dentistry.

LEARNING EXPERIENCES:
1. The student will be able to demonstrate proper handwashing and disposal of sharps.
2. Describe the different types of dental office waste and their management.
3. The student will be able to explain the requirement for protective clothing, masks, eyewear and gloves.
4. The student will be able to define universal precautions.
5. Explain the three goals of an infection control program.
6. The student will be able to explain the difference between disinfection and sterilization, and antiseptic.
7. The student will be able to identify chemical products commonly used for intermediate and low level disinfection and explain their advantages and disadvantages.
8. Give examples of critical, semicritical, and noncritical items used in the dental office.
9. The student will be able to demonstrate the process of cleaning and disinfecting the treatment room.
10. Demonstrate the process of preparing instruments for sterilization in an autoclave, chemiclave, and dry heat sterilizer.
11. The student will be able to demonstrate the process of disinfecting a dental impression.

TEXT:
1. Dental Assisting, A Comprehensive Approach, Phinney & Halstead
   3rd Edition, Thomson Delmar Learning
OUTCOMES MEASUREMENT:
Tests 50%
Quizzes 20%
Final examination 30%

ATTENDANCE:
Attendance at all classes is mandatory

COURSE CONTENT

*Infection Control Guidelines*
Phinney & Halstead, Chapter 11 pages 200-203
LEARNING EXPERIENCES:
This section identifies rationales and regulations of infection control including regulations and recommendations for infection control in the dental office and OSHA-mandated Training for dental office employees.
2 hours (Didactic)

*Occupational Exposure Determination and Postexposure Management*
Phinney & Halstead, Chapter 11 page 203; Chapter 12 pages 239-241
LEARNING EXPERIENCES:
The student will identify cross contamination pathways, occupational exposure to bloodborne pathogens and care of the employee work site.
2 hours (Didactic)

*Hepatitis B Immunization and Employee Medical Records*
Phinney & Halstead, Chapter 12 pages 233-241
LEARNING EXPERIENCES:
The student will identify OSHA requirements for immunization, Hepatitis B vaccine, post testing and booster. They will be taught about employee medical records, what they contain, and how long they are kept on file.
2 hours (Didactic)

*Handwashing and Hand Care*
Phinney & Halstead, Chapter 11 pages 207-208
LEARNING EXPERIENCES:
The students will discuss and demonstrate steps in handwashing before and after gloving and care of the hands.
3 hours (didactic) and 2 hours (Laboratory)
**Personal Protective Equipment**
Phinney & Halstead, Chapter 11 pages 208-214
LEARNING EXPERIENCES:
The students will discuss and demonstrate the principles of personal protective equipment including masks, gloves, eye wear, and clothing.
2 hours (didactic)

**Medical Waste Management**
Phinney & Halstead, Chapter 12 pages 234-247
LEARNING EXPERIENCES:
This unit identifies the scope of the OSHA’s Bloodborne Pathogen Standard Revision including exposure control plan additions and OSHA Compliance Directive, engineering/ work practice conodes, sharps including occupational exposure to bloodborne pathogens and employee work site, and hazardous chemicals including material safety data sheets.
3 hours (Didactic)

**Classifications of Surface, Equipment, and Instruments**
Phinney & Halstead, Chapter 11 pages 215-216
LEARNING EXPERIENCES:
The students will understand EPA chemical classifications of high-level, intermediate, and low-level disinfectants.
1 hour (didactic)

**Classifications of Chemical Sterilants and Disinfectants**
Phinney & Halstead, Chapter 11 pages 216
LEARNING EXPERIENCES:
The students will learn the advantages and disadvantages of sterilants/disinfectants.
2 hours (didactic)

**Disinfectants and Their Selection**
Phinney & Halstead, Chapter 11 pages 216
LEARNING EXPERIENCES:
The student will discuss and demonstrate disinfection including cleaning the area, environmental protection agency approval, chemical disinfectants, disinfection technique, and ultrasonic cleaning.
3 hours (Didactic)

**Cleaning and Disinfection of the Treatment Room**
Phinney & Halstead, Chapter 11 pages 215-216, 226-227
LEARNING EXPERIENCES:
The students will demonstrate treatment room reprocessing, spray-wipe-spray technique, guidelines for treatment room care and performing the technique. 3 hours (Didactic) 9 hours (Laboratory)

**Instrument Reprocessing, Sterilization Center, and Sterilization**
Phinney & Halstead, Chapter 11 pages 217-223
LEARNING EXPERIENCES:
The students will identify and demonstrate sterilization including liquid chemical disinfection/sterilization, ethylene oxide sterilization, hot (glass) bead or salt sterilization, dry heat sterilization, chemical vapor sterilization, steam under pressure sterilization, steam autoclave (flash) sterilization, equipment maintenance, handpiece sterilization, packing and loading sterilizers, and instrument storage. They will also discuss sterilization monitoring including biological monitors, process indicators, and dosage indicators. 15 hours (Didactic) 15 hours (Laboratory)

**Disinfection of Laboratory Cases, Impressions, and the Laboratory**
Phinney & Halstead, Chapter 11 pages 229-230
LEARNING EXPERIENCES:
The students will discuss and demonstrate disinfecting after the impression, PPE needed, manufacturer’s directions, storage and transport, disinfecting the laboratory, and handling of returned case. 2 hours (Didactic) 4 hours (Laboratory)

**CONTENT:**
1. Rationales and Regulations of Infection Control
   a. Regulations and Recommendations for Infection Control in the Dental Office
   b. OSHA-Mandated Training for Dental Office Employees
2. Cross Contamination Pathways
3. Chain of infection
   a. Agent
   b. Reservoir
   c. Portal of exit
   d. Mode of transmission
   e. Portal of entry
   f. Host
4. Breaking the chain of infection
   a. Between agent and reservoir
   b. Between reservoir and portal of exit
   c. Between portal of exit and mode of transmission
   d. Between mode of transmission and portal of entry
   e. Between portal of entry and host
5. Routes of Microbial Transmission in the Dental Office
6. Infection Control in the Dental Office
   a. Immunizations
   b. Medical History
   c. Handwashing

PRACTICAL EXAMINATION
   d. Personal Protective Equipment
      • Protective Eyewear
      • Gloves
         - Donning and Removal of Gloves
      • Masks
      • Protective Clothing
   e. Barriers

QUIZ
TEST

7. Disinfection
   a. Cleaning the Area
   b. Environmental Protection Agency Approval
   c. Chemical Disinfectants
      • Chlorine Dioxide
      • Gluteraldehyde
      • Sodium Hypochlorite
      • Iodophor
      • Phenolics
      • Alcohol
   d. Disinfection Technique
   e. Ultrasonic Cleaning

8. Sterilization
   a. Liquid chemical disinfection
   b. Ethylene oxide Sterilization
   c. Hot (glass) bead or slat sterilization
   d. Dry heat sterilization
   e. Chemical vapor sterilization
   f. Steam under pressure sterilization
   g. Steam autoclave (Flash) sterilization
   h. Equipment Maintenance
   i. Handpiece Sterilization
      • Dental Fiber Optics
   j. Packing and Loading Sterilizers
9. Sterilization Monitoring
   a. Biological monitors
   b. Process indicators
   c. Dosage indicators
10. Techniques and aids for infection control
    a. Preprocedure antiseptic mouth rinses
    b. High-volume evacuation
    c. Dental dam usage
    d. Disposable items
11. Clinical Asepsis Protocol
    a. Treatment Area Protocol for Disinfecting and Cleaning
13. Dental Radiography room and Equipment
14. Dental Laboratory
   QUIZ
   TEST
   PRACTICAL EXAMINATIONS

15. Dental Unit Waterlines
    a. Microorganisms In Dental Unit Water
    b. Biofilm
       • Growth-Promoting Factors
       • Bacterial Characteristics
    c. Methods for Reducing Bacterial Contamination
       • Self-Contained Water Reservoirs
       • Microfiltration Cartridges
       • Chemical Agents
    d. Infection Control and Dental Unit Water
       • Using the proper water
       • Flushing Waterlines
       • Minimizing Aerosols
       • Using Protective Barriers
       • Monitoring Water Quality
       • Use of Saliva Ejectors
    e. Legal and Ethical Implications

QUIZ
TEST

1. Management of Hazardous Materials
   a. OSHA’s Bloodborne Pathogen Standard Revision
      • Exposure Control Plan Additions
      • OSHA Compliance Directive
   b. Engineering/Work Practice Controls
   c. Sharps
      • Occupational Exposure to Bloodborne Pathogens
- Documentation of Exposure Incident
- Exposed Employee Blood (Collection and Testing)
- Postexposure Follow-Up Procedures
  - Employee Worksite
    - Broken Glass
    - Laundry
  d. Hazardous Chemicals
    - Material Safety Data Sheets

TEST

FINAL EXAMINATION
Course Syllabus

FALL SEMESTER

NAME OF COURSE: DA 101 Dental Assisting I
(Legal & Ethical Aspects of Dentistry)

CREDITS: 15 Hours (Didactic)

METHODOLOGY: Lecture and Discussion
Required readings
Text assignments

INSTRUCTOR: Michelle Racette, RDH

COURSE DESCRIPTION
This course is designed to alert the learner to the fact that dentist’s professional conduct, and their own, are governed by the ethical standards established by their professional organization. The learner will understand the law as it relates to dentistry and their legal responsibilities.

INSTRUCTIONAL OBJECTIVES:
1. The student will be able define and compare ethics, jurisprudence, and risk management.
2. Explain the difference between ethical and legal considerations.
3. Explain the purpose of the code of ethics.
4. The student will be able to explain the system of reciprocity and the purpose of licensure.
5. Explain the difference between implied and expressed consent.
6. Explain the elements required for a tort claim.
7. The student will be able to discuss how an assistant can help prevent malpractice lawsuits.

TEXTS:
1. Ethics, Jurisprudence and Risk Management
2. Dental Assisting A Comprehensive Approach, Phinney & Halstead
   3rd Edition, Thomson Delmar Learning

OUTCOMES MEASUREMENT:
Quizzes 40%
Discussion 10%
Final Examination 50%

ATTENDANCE:
Attendance at all classes is mandatory

COURSE CONTENT:
*Introduction of Ethics, Jurisprudence, and Risk Management*
Ehrlich, Ann, Chapter 1, Text pp. 1 – 16
LEARNING EXPERIENCES:
The student will learn ethics, jurisprudence and risk management defined, discussion on the importance of professional and personal ethics in the workplace, principles of ethics of the ADAA, criteria to be met if a decision is ethical and criteria to be met if a decision is not ethical, discussion between the difference of admission against interest and res gestae, and the difference between a deposition and testimony. The will also be taught about contributory negligence, civil law, criminal law, defendant, malpractice, negligence, plaintiff, and prudent and reasonable person defined.
3 Hours (didactic)

*The State Regulation of Dentistry*
Ehrlich, Ann, Chapter 2, Text pp. 17 – 36
LEARNING EXPERIENCES:
This section includes a discussion on the primary functions of the State Board of Dentistry, respondeat superior defined, the four levels of supervision and causes for suspension or revocation of a dentist’s license. It also explains dental auxiliaries’ duties and how they are governed by the state law, provisions of a State Dental Practice Act, liability insurance, licensure, certification and registration.
3 Hours (didactic)

*Civil Law and the Dentist*
Ehrlich, Ann, Chapter 3, Text pp. 37 – 60
LEARNING EXPERIENCES:
The students will discuss the difference between contract and tort law, the three parts of a legal contract, and the difference between implied and expressed contract. They will also discuss the dentist’s four defenses against charges of breach of contract, the A, B, C, D’s of malpractice. They will define libel and liable. There will be a discussion on establishing a legal duty and defining a patient of record, liabilities in dentistry and understanding the patient’s point of view.
3 Hours (didactic)

*The Dentist’s Legal Responsibilities to the Patient*
Ehrlich, Ann, Chapter 4, Text pp. 61 – 84
LEARNING EXPERIENCES:
The students will define skill, care, and judgment and how these terms apply to the dental assistant. They will learn five requirements for valid consent and the limits of
implied consent as given by a patient. There will be discussion on how the dentist should protect himself or herself against charges of abandonment, the steps which must be taken in order for a dentist to withdraw from a patient case, on the dentist’s duty to achieve reasonable result and when to refer to a specialist, the need to protect the patient’s privacy, the need to give clear instructions to a patient and how this may be achieved. Reasonable fee will also be defined.

3 Hours (didactic)

**Risk Management**

Ehrlich, Ann, Chapter 5, Text pp. 85 – 110

**LEARNING EXPERIENCES:**

Risk management will be defined, why it is important, and the ten rules of risk management. The students will discuss items that are included in the patient’s chart and items that are not included in the patient chart, who owns the patient’s records and the patient’s rights in terms of access to the records. The student will learn the assistant’s role in risk management, making financial arrangements with patients, emergency preparedness and why it is important, and how to correct an error on a patient record entry.

3 Hours (didactic)

**CONTENT:**

1. Introduction to Ethics, Jurisprudence, and Risk Management
   a. Ethics and Jurisprudence Compared
   b. Professional Ethics
   c. Personal Ethics
   d. Personal and Professional Ethics in the Workplace
   e. Important Legal Terms
   f. What to do if the Dentist is Sued
   g. If you are Called into Court
      - Subpoena
      - Deposition
      - Testimony

**TEST**

2. The State Regulation of Dentistry
   a. The State Dental Practice Act
   b. The State Board of Dentistry
   c. Licensure
      - Reciprocity
   d. Suspension and Revocation of Professional Licenses
      - Conviction of a Crime
      - Unprofessional Conduct
      - Personal or Professional Incapacity
   e. Specific Grounds for Discipline
3. Civil Law and the Dentist
   a. Civil Action Against the Dentist
   b. Contract Law
   c. Types of Contracts
   d. Breach of Contract
   e. Defense Against Breach of Contract
   f. Tort Law
   g. Establishing a Legal Duty
   h. Liabilities in Dentistry
      • Breach of Contract
      • Maligning a Patient
      • Permitting a Hazard in the Dental Office
      • Technical Assault
      • Malpractice
   i. Understanding the Patient’s Point of View
      • Fear
      • Financial Worries
      • Emotional Responses
      • Psychological Implications

4. The Dentist’s Legal Responsibilities to the Patient
   a. Responsibilities of the Dentist and Auxiliary
      • Reasonable Skill, Care, and Judgment
   b. Doing Only Those Things Consented to by the Patient
      • Consent by a Parent or Guardian
      • Informed Consent
• Implied Consent
• Consent Implied in an Emergency
• Written Consent
c. Abandoning the Patient
• Coverage When the Office is Closed
• Availability and Difficulty in Getting an Appointment
• Failure to Pay for Treatment
• Refusing to Continue Treatment
d. Withdrawal from a Case
• Written Notification
• Proof of Mailing
• Documentation on File
• The Letter of Withdrawal
e. Referring Unusual Cases to a Specialist
• Documenting Referrals
f. Use of Standard Drugs, Materials, and Techniques
• Improper Use of Drugs
• Drug Abuse
g. Achieving a Reasonable Result
• Unrealistic Expectations
• Improper Fitting of Dentures and Bridges
h. Completing Treatment Within a Reasonable Time
i. Holding Inviolate the Patient’s Privacy
j. Giving Adequate Instructions to the Patient
k. Reasonable Fees for Services Provided

TEST

5. Risk Management
   a. Patient Records Are Important Legal Documents
   b. Guidelines for Clinical Record Entries
   c. Altered Records
d. Ownership of Patient Records
e. Radiographs as Records
f. Safeguarding Patient Records
g. Retaining Inactive Records
h. Emergency Preparedness
   • Documentation of Emergency
   • Managing Emergency Situations
   i. The Practice Information Brochure
   j. Your Role in Risk Management
      • Addressing the Doctor with Respect
      • Introducing Yourself
      • Addressing the Patients with Respect
   k. Creating a Comfortable Environment
• Neatness
• Signs
• Answering the Telephone
• Greeting Patients
• Patient Complaints
  l. Respect the Patient’s Time
  m. Making Financial Arrangements
    • Payment at the Time of Treatment
    • If the Patient has Insurance
    • Collecting Overdue Accounts

TEST

FINAL EXAMINATION
Course Syllabus

FALL SEMESTER

NAME OF COURSE: DA 102 Dental Sciences
Dental Anatomy, Histology, and Embryology

CREDITS: 36 Hours (Didactic)

METHODOLOGY: Lecture and Discussion
Demonstrations and power points

INSTRUCTOR: Michelle Racette, RDH

COURSE DESCRIPTION:
This course acquaints the learner with commonly recognized anatomical structures in the head and neck and provides a basic demonstration of their functions. The basic understanding will be utilized in oral health, general dentistry, dental specialties, and radiography.

INSTRUCTIONAL OBJECTIVES:
1. The student will be able to define the studies of embryology, histology and all the terms presented.
2. Describe the life cycle of the tooth, developmental disturbances, the tissues of the tooth.
3. Explain the function of the periodontal membranes and describe the appearance of normal gingivae.
4. Identify the landmarks of the face, palate, and floor of the mouth, and the areas and tissues of the tongue responsible for taste.

TEXT:
1. Dental Assisting, A Comprehensive Approach, Phinney & Halstead
   3rd Edition, Thomson Delmar Learning

OUTCOMES MEASUREMENT:
Tests 40%
Quizzes 30%
Assignments 20%
Discussion 10%

ATTENDANCE:
Attendance at all classes is mandatory.
COURSE CONTENT:

*Head and Neck Anatomy*
Phinney & Halstead, Chapter 7 pages 114-117
LEARNING EXPERIENCES:
The student will identify bones of the head including the bones of the cranium and
the bones of the face and their landmarks.
6 hours (didactic)

*Muscles of the Head and Neck, Blood Supply, Sinuses, and Salivary Glands*
Phinney & Halstead, Chapter 7 pages 119-129
LEARNING EXPERIENCES:
The student will identify muscles of the head and neck including muscles of
mastication, muscles of facial expression, muscles of the tongue, muscles of the
floor of the mouth, muscles of the soft palate, and muscles of the neck. They will
also identify nerves of the head and neck including the maxillary branch of the
trigeminal nerve and the mandibular branch of the trigeminal nerve, circulation of
the head and neck including the arteries of the face and oral cavity, external
carotid artery, and the veins of the face and oral cavity. The Paranasal sinuses and
major and minor salivary glands will also be recognized.
7 hours (didactic)

*Dental Embryology*
Phinney & Halstead, Chapter 8 pages 131-136
LEARNING EXPERIENCES:
The student will be taught embryology including primitive facial development,
stages and features of pregnancy, and developmental disturbances. They will also
learn histology and the life cycle of the tooth including the bud stage, cap stage,
bell stage, and maturation stage.
5 hours (Didactic)

*Oral Histology*
Phinney & Halstead, Chapter 8 pages 136-151
LEARNING EXPERIENCES:
This section involves tooth structure including enamel, dentin, and pulp as well as
components of the periodontium including cementum, alveolar bone, periodontal
ligament, and gingiva.
5 hours (Didactic)

*Anatomy of the Face and Oral Cavity*
Phinney & Halstead, Chapter 7 pages 108-114
LEARNING EXPERIENCES:
The students will list and identify landmarks of the face, landmarks of the oral cavity, palate area of the oral cavity, the tongue, floor of the mouth, and salivary glands.
6 hours (Didactic)

**Tooth Morphology**
Phinney & Halstead, Chapter 9 pages 153-181

LEARNING EXPERIENCES:
The students will identify dental arches, dental quadrants, types of teeth and their functions including primary teeth and permanent teeth, eruption schedules, divisions of the tooth, surfaces of the teeth including anterior teeth, posterior teeth, contact, and embrasures. Also included in this section are anatomical structures, permanent teeth including maxillary central and lateral incisors, canine, premolars (bicusps), molars, mandibular central and lateral incisors, canines, premolars (bicusps), and molars; and deciduous teeth (primary teeth) teeth descriptions including maxillary deciduous central and lateral incisors, canine, molars, mandibular central and lateral incisors, canines, and molars.
7 hours (Didactic)

CONTENT:

1. Landmarks of the Face and Oral Cavity
   a. Landmarks of the Face
   b. Landmarks of the Oral Cavity
   c. Palate Area of the Oral Cavity
   d. Tongue
   e. Floor of the Mouth
   f. Salivary Glands
      • Saliva

   QUIZ
   TEST

2. Bones of the Head
   a. Bones of the Cranium
   b. Bones of the Face
      • Maxilla
      • Palatine Bones
      • Mandible

   QUIZ
   TEST

3. Temporomandibular Joint
QUIZ
TEST

4. Embryology
   a. Primitive Facial Development
   b. Stages and Features of Pregnancy
   c. Developmental Disturbances
      • Cleft Lip
      • Cleft Palate

QUIZ
TEST

5. Histology of the Life Cycle of the Tooth
   a. Bud Stage
   b. Cap Stage
   c. Bell Stage
   d. Maturation Stage

QUIZ
TEST

6. Tooth Structure
   a. Enamel
   b. Dentin
   c. Pulp

7. Components of the Periodontium
   a. Cementum
   b. Alveolar Bone
   c. Periodontal Ligament
   d. Gingiva

QUIZ
TEST

8. Muscles of the Head and Neck
   a. Muscles of Mastication
   b. Muscles of Facial Expression
   c. Muscles of the Tongue
      • Hyoid Bone
   d. Muscles of the Floor of the Mouth
   e. Muscles of the Soft Palate
   f. Muscles of the Neck

QUIZ
TEST
9. Nerves of the Head and Neck
   a. Maxillary Branch of the Trigeminal Nerve
      • Pterygopalatine Nerve Branch
      • Infraorbital Nerve
      • Posterior Superior Alveolar Nerve
      • Zygomatic Nerve
   b. Mandibular Branch of the Trigeminal Nerve
      • Buccal Nerve Branch
      • Lingual Nerve Branch
      • Inferior Alveolar Nerve Branch

QUIZ
TEST

10. Circulation of the Head and Neck
   a. Arteries of the Face and Oral Cavity
   b. External Carotid Artery
      • Lingual Artery
      • Facial Artery
      • Maxillary Artery
      • Mandibular Artery
      • Pterygoid Artery
   c. Veins of the Face and Oral Cavity
      • Superficial Veins
      • Deep Veins
      • Jugular Veins

QUIZ
TEST

11. Dental Arches
12. Dental Quadrants
13. Types of Teeth and Their Functions
   a. Primary Teeth
   b. Permanent Teeth
14. Eruption Schedule
15. Divisions of the Tooth
16. Surfaces of the Teeth
   a. Anterior Teeth
   b. Posterior Teeth
   c. Contact Embrasure
17. Anatomical Structures
18. Permanent Teeth
   a. Maxillary Central Incisor
   b. Maxillary Lateral Incisor
   c. Maxillary Canine (Cuspid)
d. Maxillary First Premolar (Bicuspid)
e. Maxillary Second Premolar (Bicuspid)
f. Maxillary Third Molar
g. Mandibular Central Incisor
h. Mandibular Lateral Incisor
i. Mandibular Canine (Cuspid)
j. Mandibular First Premolar (Bicuspid)
k. Mandibular Second Premolar (Bicuspid)
l. Mandibular First Molar
m. Mandibular Second Molar
n. Mandibular Third Molar

19. Deciduous (Primary) teeth Descriptions
   a. Maxillary Deciduous Central Incisor
   b. Maxillary Deciduous Lateral Incisor
   c. Maxillary Deciduous Canine (Cuspid)
   d. Maxillary Deciduous First Molar
   e. Maxillary Deciduous Second Molar
   f. Mandibular Deciduous Central Incisor
   g. Mandibular Deciduous Lateral Incisor
   h. Mandibular Deciduous Canine (Cuspid)
   i. Mandibular Deciduous First Molar
   j. Mandibular Deciduous Second Molar

QUIZ
TEST
Course Syllabus

FALL/SPRING SEMESTER

NAME OF COURSE: DA 103 Dental Radiology
DA 203 Dental Science II
(Dental Radiography)

CREDITS: 70 Hours (Didactic) – 40 Hours (Laboratory)

METHODOLOGY: Lecture and Discussion, required readings
Text assignments, skulls, x-ray viewing lights
Processed x-ray films and mounts
Lead aprons/collars

INSTRUCTORS: Michelle Racette, RDH

COURSE DESCRIPTION:
This course is designed to examine the theoretical aspects of radiation physics, including the safety, biological hazards, intra-oral radiographic techniques, darkroom and automatic processing, film mounting and radiographic interpretation. Proficiency in radiographic techniques will be accomplished on a manikin. The students will also expose three full mouth series x-rays on patients the instructor/student provide. Emphasis will be placed on proper radiographic technique through the evaluation and analysis of the exposed x-rays.

LEARNING EXPERIENCES:
1. The student will demonstrate knowledge in exposing, processing and mounting dental x-ray films that can be used effectively by a dentist in making a diagnosis.
2. The student will follow radiation safety precautions as recommended by the American Dental Association and by state and federal codes.
3. Describe the uses of dental radiographs.
4. Explain the factors that affect the density and contrast of radiographs.
5. Identify the component parts of an x-ray machine.
6. Explain the difference between somatic and genetic affects of radiation.
7. The student will be able to discuss and demonstrate the methods of protection for the patient and the operator.
8. Define radiopaque, radiolucent and the ALARA concept.
9. The student will have basic knowledge in digital imaging

TEXTS:
OUTCOMES MEASUREMENT:
Clinical evaluations 50%
Written tests 30%
Final Examination 20%

ATTENDANCE:
Attendance at all classes is mandatory

COURSE CONTENT:

*Ionizing Radiation and Basic Principles of X-Ray Generation*
Frommer, Chapter 1, Text pp. 1-19

LEARNING EXPERIENCES:
The student will understand radiation and electromagnetic spectrum, and properties of x-rays. They will be taught radiology history including Roentgen & Kells, atomic structure, ionization, the x-ray tube, high voltage source of electrons, target and heat production and x-ray production
2 Hours (didactic)

*The Dental X-ray Machine*
Frommer, Chapter 2, Text pp. 21-36
The student will learn about x-ray machine rectification, circuitry, control panel, timer, x-ray beam, quality and quantity of x-rays, milliamperage, kilovoltage, filtration, collimation (size and shape).
3 Hours (didactic)

*Image Formation and Receptors*
Frommer, Chapter 3 & 4, Text pp. 37-66

LEARNING EXPERIENCES:
The student will understand film density and contrast-object contrast, short scale, long scale, and film contrast, the image detail and definition-size of tube focal area, film distance and object distance, focal film distance, tube position, intensity, and the inverse square law. They will also learn about image distortion and enlargement, movement and viewing conditions, film size, composition, sensitivity, film contrast, definition and detail, film fog, duplicating film procedure, and film screen combination-intensifying screens.
3 Hours (didactic)
**Biologic Effects of Radiation**  
Frommer, Chapter 5, Text pp. 67-85  

**LEARNING EXPERIENCES:**  
The students will understand the interaction of x-rays with matter, effects of ionizing radiation-direct and indirect effects. They will learn the units of radiation measurement-roentgen, radiation absorbed dose (rad), roentgen equivalent man (rem)-the new units coulomb per kilogram (C/kg), gray (Gy) and sievert (Sv), exposure, dose, dose equivalent. They will learn the basic concepts of exposure and dose, localized radiation and total body exposure, dose response curve, somatic and genetic effects, acute and chronic effects, latent period and cell recovery, dose rate, long term effects, risk estimates. Students will be taught about tissue sensitivity, critical organs, background radiation, patient dosage-skin, eyes, thyroid, bone marrow, gonads, pregnancy, and radiation caries.  
5 Hours (didactic)

**Radiation Protection**  
Frommer, Chapter 6 & 7, Text pp. 87-111  

**LEARNING EXPERIENCES:**  
The student will understand patient radiation protection including equipment - tube head and arm, head leakage, drift, kilovoltage and milliamperage seconds, filtration, collimation, timing device, position indicating devices, film holders, film, intensifying screens and digital sensors, lead aprons and collars. They will understand and apply to practice: technique including retakes, exposure, paralleling technique, film distance, darkroom, and viewing the finishing radiographs. They will use clinical judgment including radiation history, selection criteria, and administrative radiographs. The student will understand operator dosage and protection-maximum permissible dose (MPD), exposure techniques, radiation monitoring, protective barriers, pregnancy and understand patient concerns and education, and quality assurance.  
5 Hours (didactic)

**Film Processing in the Darkroom and the Automatic Daylight Loader**  
Frommer, Chapter 8, Text pp. 113-147  

**LEARNING EXPERIENCES:**  
The student will understand the theory of film processing and how to operate and maintain a darkroom, together with design and requirements of the darkroom including location, size, safelight, white light, view box, outside warning light, plumbing, processing tanks, solutions, replenishing, timer, thermometer, film hangers and the dryer. They will understand the developing process including manual and automatic processing, latent image, developing, washing, fixing, washing and drying. They will identify time versus sight development of the film, rapid processing. The student will learn care and maintenance of the darkroom including solutions, record keeping and cleanliness. They will also understand environmental concerns. They will have knowledge in automatic processing including plumbing, care and
maintenance, and size of film. They will utilize quality assurance and learn about duplicating radiographs. They will be taught common errors in the darkroom including fogged film, underdeveloped and overdeveloped film, developer cutoff, clear and stained films, discolored films, torn emulsion, scratched films and film lost in the tanks, air bubbles on the film, static marks and reticulation, as well as automatic processing errors including light leaks, dirty rollers and overlapped films.

6 Hours (didactic)  15 Hours (laboratory)

_Infection Control in Dental Radiography_
Frommer, Chapter 9, Text pp. 149-163

**LEARNING EXPERIENCES:**
The student will learn to process all radiographs adhering to the accepted infection control policy including patient history, sources of infection, personnel-gowns, mask and eye protection, hand washing and gloves. They will utilize barriers, sterilization and disinfection techniques, proper handling of the film packets, processing solutions including dark room and the automatic processor, antibiotic prophylaxis, immunization and chairside exposure procedures.

3 Hours (didactic)

_Patient Management and Special Considerations_
Frommer, Chapter 18, Text pp. 331-357

**LEARNING EXPERIENCES:**
The student will understand how to manage patients with disabilities including physical, developmental, mobility, bedridden, hearing and vision impaired patients, and handling the pediatric patient. They will be taught about special problems including gagging, attitude, film order and technique, deep breathing, bite blocks and film holding devices, lozenges, gargles, sprays, salt, and hypnosis. They will learn about localization problems including definition evaluation, tube drift, right angle technique, third molar problems, film placement problems-narrow arch, shallow palate, lingual frenulum, tori, canine overlap, trismus, endodontic problems.

2 Hours (didactic)

_The Paralleling Method_
Frommer, Chapter 10, Text pp. 165-209

**LEARNING EXPERIENCES:**
The student will be taught about the full mouth survey including pediatric, edentulous, criteria for the intraoral radiographs and quality assurance. They will learn how to utilize the paralleling technique including advantages and disadvantages as compared to bisecting angle, and advantages and disadvantages of the paralleling technique. They will be taught about film holders and their components. They will utilize methods including chair position, exposure time, film position, point of entry, vertical and horizontal angulation. They will apply the principles of the paralleling technique for the film placement of periapical and bitewing radiographs. The student will be familiar with common exposure errors including cone cutting, film reversal, poor film placement, overlapping, bent film and crescent marks, light and dark film,
double exposure, blurred images, failure to remove facial jewelry and dental appliances.

6 Hours (didactic) 15 Hours (laboratory)

*The Bisecting Technique and Occlusal Projections*
Frommer, Chapter 11, Text pp. 211-232
LEARNING EXPERIENCES:
The student will understand the bisecting technique including advantages and disadvantages; apply methods for taking the full mouth survey, chair position and patient position, vertical and horizontal angulation. They will understand common errors including elongation, foreshortening and sagittal plane orientation. The student will understand and utilize the occlusal film projections including the right angle projection, topographic projection, the film packet, and maxillary and mandibular occlusal technique.
4 Hours (didactic) 3 Hours (laboratory)

*Extraoral Radiographic Techniques*
Frommer, Chapter 13, Text pp. 263-275
LEARNING EXPERIENCES:
The student will understand the indications for extraoral radiographs. They will be taught about the equipment including the x-ray unit and cassettes, the film screen combination-holding devices, grid, film sensitivity and processing of the film. They will gain knowledge in the lateral oblique projection of the mandible, lateral skull projection, posteroanterior projection, view of the sinuses, TMJ projection, and the submentovertex projection.
1 Hours (didactic)

*Panoramic Radiography*
Frommer, Chapter 10, Text pp. 233-262
LEARNING EXPERIENCES:
The student will understand common positioning requirements for panoramic units, advantages and disadvantages, technique-positioning of the patient, processing requirements. They will be knowledgeable in common errors including the patient positioned too far forward, too far back, patient’s head tilted up or down, movement during exposure, patient doesn’t sit or stand up erect, failure to remove metal objects, lead apron placed to high on the patient, and patient contact with the film cassette.
3 Hours (didactic)

*Digital Imaging*
Frommer, Chapter 15 Text pp. 287-307
LEARNING EXPERIENCES:
The student will understand the x-ray unit, sensors and nature of the image, and advantages and disadvantages. They will learn about different types of systems including direct and indirect digital image, optically scanned and legal issues. They will also be taught about computed tomography (CT scanning) and magnetic
resonance imaging along with the advantages and disadvantages of digital radiography. The student will be able to make images using digital radiography.

3 Hours (didactic)

**Radiography of the Temporomandibular Joint**
Frommer, Chapter 14, Text pp. 277-285

LEARNING EXPERIENCES:
The student will review the radiographic anatomy of the joint. They will learn types of projections including transcranial, submental or basalar, panoramic, CT scanning and MRI. They will also be taught about soft tissue radiographing by means of arthrography.
1 Hour (didactic)

**Advanced Imaging Systems**
Frommer, Chapter 16, Text pp. 309-321

LEARNING EXPERIENCES:
The student will have a basic understanding of using computed tomography (CT) scanning, magnetic resonance imaging (MRI) and positron emission tomography (PET) in the field of dentistry. They will also learn the advantages and disadvantages of CT scanning.
1 Hour (didactic)

**Film Mounting and Radiographic Anatomy**
Frommer, Chapter 19, Text pp. 359-391

LEARNING EXPERIENCES:
The student will learn terminology including radiolucent and radiopaque and have a review of dental anatomy. They will be taught about different types of radiographic mounts and the procedure for mounting the radiographs. They will recognize normal radiographic anatomy and tooth anatomy, the appearance of restorations, incisive foramen, median palatine suture, nasal fossa, anterior nasal spine, floor of the maxillary sinus, shadow of the nose, zygomatic process, maxillary sinus, septum in the sinus, hamular process, genial tubercle, lingual foramen, nutrient canals, mental ridge, inferior border of the mandible, mandibular canal, and mental foramen.
6 Hours (didactic) 5 Hours (laboratory)

**Radiographic Interpretation**

LEARNING EXPERIENCES:
The students will understand the steps taken in interpretation versus diagnosis including that the dental auxiliary’s role is to offer some basic understanding of the interpretation and the importance of producing an adequate diagnostic radiograph. They will learn to recognize caries including incipient, advanced, occlusal, buccal and lingual, interproximal caries and conditions that resemble caries, cervical burnout, abrasions, attrition, indirect pulp capping, restorative materials-silicates, acrylics,
composites, metallic. They will learn to identify periodontal disease, calculus, restorations with open contacts, poor contours, overhangs and deficient margins, bone loss, dentinogenesis imperfecta, pulp stone, abscess, fractures, condensing osteitis, root resorption, cyst, internal resorption, impacted, supernumerary, congenitally missing, malpositioned teeth, dilacerations, hypercementosis, cleft palate, and tori.

4 Hours (didactic)  2 Hours (laboratory)

Legal Considerations
Frommer, Chapter 25, Text pp. 469-476

LEARNING EXPERIENCES:
The student will describe and be able to differentiate between federal and state regulations including safety specifications of the x-ray unit, licensure of the dental team, risk management, informed consent for taking radiographs, records, confidentiality, ownership of the radiographs, and insurance claims in regard to the radiographs.

2 Hours (didactic)

CONTENT:

1. Ionizing Radiation and Basic Principles of X-ray Generation
   a. Radiation
   b. The Electromagnetic Spectrum
   c. History of X-rays
   d. Ionization
   e. X-ray Tube
      • High Voltage
      • Source of Electrons
      • Target
      • Heat Production
   f. X-ray Production
   g. Bremsstrahlung and Characteristic X-rays

TEST

2. The Dental X-ray Machine
   a. Electricity
      • Rectification
   b. Circuitry
   c. Control Panel
      • Timer
   d. X-ray Beam
   e. Quality and Quantity of X-rays
      • Quality (Kilovoltage)
• Half-Value Layer
• Quantity (Milliamperage)
• Intensity
f. Filtration
g. Collimation
  • Rectangular Collimation

TEST

3. Image Formation
   a. Film Density and Contrast
      • Object Contrast
      • Film Contrast
   b. Image Detail and Definition
      • Size of Tube Focal (Target) Area
      • Focal-Film Distance and Object-Film Distance
   c. Image Distortion and Enlargement
      • Movement
      • Viewing Conditions

4. Image Receptors
   a. History
   b. Film Size
      • Composition
      • Sensitivity (speed)
      • Film Contrast
      • Film Definition and Detail
      • Film Fog
   c. Duplicating Film
      • Procedure
   d. Film-Screen Combination
      • Intensifying Screens

TEST

5. Biologic Effects of Radiation
   a. Interaction of X-rays with Matter
   b. Effects of Ionizing Radiation
      • Direct and Indirect Effects
   c. Units of Radiation Measurement
      • Exposure
      • Dose
      • Dose Equivalent
d. Basic Concepts
   • Exposure and Dose
   • Localized Radiation and Total Body Exposure
- Dose-Response Curve
- Somatic and Genetic Effects
- Acute and Chronic Effects
- Latent Period and Cell Recovery
- Dose Rate
- Long-Term Effects
- Risk Estimates

e. Tissue Sensitivity
   - Critical Organs
   - Background Radiation
   - Patient Dosage
     - Skin
     - Eyes
     - Thyroid
     - Bone Marrow
     - Gonads
     - Pregnancy

f. Radiation Caries

TEST
6. Patient Protection
   a. Patient Protection
   b. Equipment
      - Tube Head and Arm
        - Head Leakage
        - Drift
        - Kilovoltage and Milliampere Seconds
        - Filtration
        - Collimation
        - Timing Device
        - Position-Indicating Devices
      - Receptor (Film) Holders
      - Film, Intensifying Screens, and Digital Sensors
      - Lead Aprons and Thyroid Collars
   c. Technique
      - Retakes
      - Exposure
      - Paralleling Technique
      - Focal-Film Distance
      - Darkroom
      - Viewing Finished Radiographs
   d. Clinical Judgment
      - Radiation History
      - Selection Criteria
      - Administrative Radiographs
7. Operator Protection
   a. Operator Dosage and Protection
      • Maximum Permissible Dose
      • Exposure Technique
      • Radiation Monitoring
      • Protective Barriers
      • Pregnancy
   b. Patient Concerns and Education

8. Film Processing
   a. Design and Requirements of the Darkroom
      • Location and Size
      • Lighting
         - Illuminating Safelight
         - Cell Phones
         - Overhead White Light
         - Viewing Safelight
         - X-ray View Box
         - Outside Warning Light
      • Plumbing
      • Contents
         - Processing Tanks
         - Solutions
         - Replenishing
         - Timer and Thermometer
         - Film Hangers
         - Dryer
   b. The Development Process
      • Manual Processing
      • Automatic Processing
      • Latent Image
      • Developing
      • Washing (Stop Bath)
      • Fixing
      • Washing and Drying
   c. Time-Temperature versus Sight Development
   d. Rapid Processing
   e. Extraoral and Panoramic Films
   f. Care and Maintenance of the Darkroom
      • Cleanliness
      • Solutions
• Record Keeping

Environmental Concerns
  • Silver

Automatic Processing
  • Size of Film
  • Safelight
  • Plumbing
  • Automatic Replenishment
  • Care and Maintenance

Duplicate Radiographs

Common Errors in Processing

TEST
PRACTICAL EXAMINATIONS

9. Infection Control in Radiography
   a. Infection Control in Dental Practice
      • Patient History
   b. Sources of Infection
   c. Personnel
      • Gowns
      • Masks/Eye Protection
      • Gloves/Handwashing
   d. Barriers
      • Sterilization and Disinfection
      • Film Packets
      • Processing Solutions
      • Chairside Exposure Techniques
      • Processing Procedures
      • Automatic Processing
      • Procedures for Daylight Loaders
      • Panoramic X-ray Units
   e. Antibiotic Prophylaxis
      • Immunization

TEST
PRACTICAL EXAMINATION

10. Intraoral Technique
    a. The Full-Mouth Survey
        • Pediatric Full-Mouth Series
        • Edentulous Series
        • Quality Assurance
    b. Paralleling Technique
Advantages and Disadvantages of the Paralleling Technique Compared with the Bisecting Technique
- Advantages
- Disadvantages
c. Exposure Routine
   - Film Holders
d. Method
   - Exposure Time
   - Chair Position: Occlusal and Sagittal Plane Orientations
   - Film Position
   - Point of Entry
   - Vertical Angulation
   - Horizontal Angulation
   - The Full-Mouth Series
e. Common Errors of the Paralleling Method

TEST
PRACTICAL EXAMINATIONS

11. Accessory Radiographic Techniques
   a. Bisecting Technique
      - Advantages
      - Disadvantages
      - Method
      - The Full-Mouth Series
   b. Common Errors in the Bisecting Technique
   c. Occlusal Film Projections
      - Right-Angle Projections
      - Topographic Projections
      - Film Packet
      - Mandibular Occlusal Technique
      - Maxillary Occlusal Technique

TEST
PRACTICAL EXAMINATION

12. Panoramic Radiography
   a. Pantomogram
      - Common Positioning Requirements for Panoramic Units
      - Pantomographic Image
   b. Advantages and Disadvantages of Panoramic Tomography
   c. Indication
d. Interpretation
e. Technique
• Rules and Technique for Preparing and Positioning the Patient for Panoramic Radiography
f. Processing
g. Common Errors of Panoramic Radiography

TEST

13. Extraoral Techniques
   a. Indications
   b. Equipment
      • X-ray Unit
      • Cassettes
   c. Film-Screen Combination
      • Holding Devices
      • Grids
d. Film Sensitivity and Processing
e. Projections
      • Lateral Oblique Projection of the Mandible
      • Extraoral Radiographic Technique
      • Lateral Skull Projection
      • Posteroanterior Projection
      • Posteroanterior (Water’) View of the Sinuses
      • Submentovertex Projection

TEST

14. Radiography of the Temporomandibular Joint
   a. Anatomy of the Temporomandibular Joint
   b. Transcranial Temporomandibular Joint Projection
   c. Submentovertex (Basaler) Projection
d. Panoramic Projection
e. Conventional Tomography
f. Computed Tomography
g. Magnetic Resonance Imaging
h. Arthrography

15. Digital Imaging
   a. Digital Image
      • X-ray Unit
   b. Sensors
   c. Nature of the Image
d. Advantages and Disadvantages of Digital Radiography
e. Types of Digital Systems
      • Direct Digital Radiography
      • Indirect Digital Radiography (Storage Phosphor)
      • Optically Scanned Digital Radiography
f. Legal Aspects
PRACTICAL EXAMINATION

16. Advanced Imaging Systems
   a. Computer Tomography
      • Advantages and Disadvantages of Computed Tomography
      • Cone Beam Computed Tomography
   b. Magnetic Resonance Imaging
   c. Nuclear Medicine

17. Quality Assurance
   a. Chairside Technique
   b. Darkroom
   c. Lead Contamination

18. Patient Management and Special Considerations
   a. Management
   b. Patients with Disabilities
      • Physical Disabilities
      • Developmental Disability
      • Mobility
      • Bedridden Patients
      • Hearing Impairment
      • Vision Impairment
   c. Pediatric Patients
      • Reverse Bitewings
   d. Special Problems
      • Gagging
         - Attitude
         - Film Order and Technique
         - Deep Breathing
         - Bite Blocks and Film-Holding Devices
         - Lozenges, Gargles, and Sprays
         - Hypnosis
         - Salt
      • Localization Problems
         - Definition Evaluation
         - Tube Shift
         - Right-Angle Technique
         - Pantomography
      • Third Molar Problems
- Maxilla
- Mandible

- Film Placement Problems
  - Narrow Arch
  - Shallow Palate
  - Lingual Frenulum
  - Tori
  - Canine Overlap
  - Trismus

- Endodontic Problems
  - Grid Measurement
  - Radiopaque Media

TEST

19. Film Mounting and Radiographic Anatomy
   a. Descriptive Terminology
   b. Mounts
   c. Mounting
   d. Procedure
   e. Normal Radiographic Anatomy
   f. Radiographic Tooth Anatomy
      • Recognizing and Understanding Radiographic Anatomy of Maxilla and Mandible
   g. Restorations
   h. Radiographic Anatomy for Panoramic Films
      • Mandibular Foramen Pharyngeal Airspace
      • Styloid Process
      • Mandibular Condyle
   i. Occlusal Radiographs
   j. Extraoral Projections

TEST
PRACTICAL EXAMINATIONS

20. Principles of Radiographic Interpretation
   a. Differential Diagnosis
   b. Diagnostic Questions
   c. Caries
      • Incipient Caries
      • Interproximal Cries
      • Occlusal Caries
      • Buccal and Lingual Caries
      • Conditions Resembling Caries
         - Cervical Burnout
         - Abrasions and Attrition
- Indirect Pulp Capping
- Restorative Materials

e. Periodontal Disease
f. Normal Periodontal Structures
g. Techniques
h. Risk Factors in Periodontal Disease
   • Calculus
   • Restorations
   • Anatomic Configurations
i. Stages of Periodontal Disease
   • Gingivitis
   • Early
   • Moderate
   • Advanced
   • Periodontal Abscess
j. Pulpal Lesions
   • Anatomy
   • Pulpitis
k. Periapical Lesions
   • Periapical Pathology
   • Periapical Condensing Osteitis
   • Residual Periapical Lesions
   • Root Resorption
     • Internal Resorption
     • External Resorption
   • Periapical Cemental Dysplasia
l. Disturbances of Teeth And Bone
   • Tooth Development
   • Eruption of Teeth
   • Impacted Teeth
   • Supernumerary Teeth (Hyperdontia)
   • Congenitally Missing Teeth
   • Malposition of Teeth
   • Hypercementosis
   • Enamel Pearls
   • Fusion
   • Gemination
   • Concrescence
   • Dens Invaginatus
   • Dilaceration
   • Taurodontia
   • Amelogenesis Imperfecta
   • Dentinogenesis Imperfecta
   • Fissural Cysts
• Cleft Palate
• Dentigerous Cyst

m. Bone and Other Lesions

• Description of Lesions
  - Radiolucent versus Radiopaque
  - Location
  - Extent of the Lesion
  - Benign versus Malignant

• Cysts and Tumors
• Metabolic Bone Lesions
• Traumatic Injuries
• Foreign Bodies and Root Tips
• Extraction Sockets
• Salivary Stones

21. Legal Considerations
a. Federal and State Regulations
b. Licensure
c. Risk Management
  • Patient Relations
  • Informed Consent
  • Health Questionnaire
d. Records
  • Confidentiality
e. Ownership
  • Retention
f. Insurance Claims

TEST

FINAL EXAMINATION
Course Syllabus

FALL SEMESTER

NAME OF COURSE: DA 104 Clinical Science
(Management of Dental Emergencies)

CREDITS: 30 hours (Didactic) 28 hours (Laboratory)

METHODOLOGY: Lecture and demonstration

INSTRUCTORS: Michelle Racette, RDH
Florida Volunteer Fire Department

COURSE DESCRIPTION:
This course is designed to train the learner in recording health questionnaires, familiarize the learner with emergencies that may occur in an office, and prepare the learner to assist the dentist in treatment of dental emergencies.

COURSE OUTCOMES:
1. As a result of this course the learner will gain knowledge and become certified in CPR.
2. The learner will be able to take temperature, pulse and blood pressures.
3. The learner will become knowledgeable in the prevention and management of emergency situations.

TEXT:
1. Dental Assisting, A Comprehensive Approach, Phinney & Halstead
   3rd Edition, Thomson Delmar Learning

OUTCOMES MEASUREMENT:
Tests 30%
Quizzes 20%
Written assignments 20%
Final examination 30%

ATTENDANCE:
Attendance at all classes is mandatory.

COURSE CONTENT

Patient Record
Phinney & Halstead, Chapter 13 pages 249-250
LEARNING EXPERIENCES:
The student will understand how to complete and review the patient history including personal information, medical information, dental information, and clinical observation.
3 hours (Didactic) 2 hours (Laboratory)

Vital Signs
Phinney & Halstead, Chapter 13 pages 253-260
LEARNING EXPERIENCES:
The student will perform or assist in taking and recording vital signs including body temperature, pulse, respiration, and blood pressure.
4 hours (Didactic) 6 hours (Laboratory)

Prevention of Medical Emergencies
Phinney & Halstead, Chapter 16 page 299
LEARNING EXPERIENCES:
The student will understand routine preparedness for dental team members and the dental assistants’ role in emergency care.
3 hours (Didactic) 2 hours (Laboratory)

Protocols for Managing Medical Emergencies
Phinney & Halstead, Chapter 16 pages 299-300
LEARNING EXPERIENCES:
The students will learn to document an emergency and use emergency telephone number and emergency care standards.
2 hours (Didactic)

Emergency Preparedness and Supplies
Phinney & Halstead, Chapter 16 pages 300-301
LEARNING EXPERIENCES:
The student will learn the contents needed in the dental office emergency kit and cardiopulmonary resuscitation including the ABCD’s of CPR.
2 hours (Didactic)

Recognition of Medical Emergencies
Phinney & Halstead, Chapter 16 pages 308-316
LEARNING EXPERIENCES:
The student will identify the causes, signs, and treatment of emergencies including syncope, orthostatic hypotension, asthma, allergic reaction, anaphylactic reaction, hyperventilation, epilepsy/seizure disorder, diabetes
mellitus, hypoglycemia, cardiovascular emergencies, angina pectoris, myocardial infarction, congestive heart failure, and stroke/cerebrovascular accident.

5 hours (Didactic)

Dental emergencies
Phinney & Halstead, Chapter 16 pages 316-317
LEARNING EXPERIENCES:
The student will be able to identify several dental emergencies that a patient may have, such as an abscessed tooth, alveolitis, avulsed tooth, broken prosthesis, soft tissue injury, broken tooth, and loose crown
3 hours (Didactic)

CPR
Basic Life Support for the Health Care Provider; The American Heart Association
LEARNING EXPERIENCES:
Upon completion of this section the student will be able to perform the following skills: adult one and two rescuer CPR, adult foreign body airway obstruction (conscious and unconscious), child one rescuer CPR, child foreign body airway obstruction (conscious and unconscious), infant one rescuer CPR, and infant foreign body airway obstruction (conscious and unconscious) as well as the ABCD’s of CPR and the Heimlich maneuver.
8 hours (didactic) 18 hours (laboratory)

CONTENT:

1. Patient History
   a. Personal Information
   b. Medical Information
   c. Dental Information
   d. Clinical Observation
2. Vital Signs
   a. Body Temperature
   b. Pulse
      • Radial Pulse Site
      • Carotid Pulse Site
      • Temporal Pulse Site
   c. Respiration
   d. Blood Pressure

TEST
PRACTICAL EXAMINATIONS

3. Routine Preparedness for Dental Team Members
4. The Dental Assistant’s Role in Emergency Care
5. Dental Office Emergency Kit

TEST
6. Cardiopulmonary Resuscitation
   a. The ABC’s of CPR
7. Foreign Body Airway Obstruction

TEST
PRACTICAL EXAMINATION

8. Causes, Signs, and Treatment of Emergencies
   a. Syncope

QUIZ
   b. Orthostatic Hypotension

QUIZ
   c. Asthma

QUIZ
d. Allergic Reactions
e. Anaphylactic Reaction

QUIZ
   f. Hyperventilation

g. Epilepsy/Seizure Disorder
   • Grand Mal Seizure
   • Petit Mal Seizure
   • Partial Seizure
   • Treatment for Patients Who Experience Seizures

h. Diabetes Mellitus
   • Type I Diabetes Mellitus
   • Type II Diabetes Mellitus

i. Hypoglycemia

QUIZ
j. Cardiovascular Emergencies
k. Angina Pectoris
l. Myocardial Infarction
m. Congestive Heart Failure
n. Stroke/Cerebrovascular Accident

QUIZ

TEST
o. Dental Emergencies
  • Abscessed Tooth
  • Alveolitis
  • Avulsed Tooth
  • Soft Tissue Injury
  • Broken Prosthesis
  • Soft Tissue Injury
  • Broken Tooth
  • Loose Permanent or Temporary Crown

QUIZ
TEST

FINAL EXAMINATION
Course Syllabus

FALL SEMESTER

NAME OF COURSE: DA 104 Clinical Sciences I (Nutrition)

CREDITS: 10 Hours (Didactic) 5 hours (Laboratory)

METHODOLOGY: Lecture and discussion

INSTRUCTOR: Michelle Racette, RDH

COURSE DESCRIPTION:
This course covers the role that food and nutrients play in supplying building materials as a result of metabolic reactions. Dietary considerations for the dental patient are discussed.

TEXT:
1. Dental Assisting, A Comprehensive Approach, Phinney & Halstead
   3rd Edition, Thomson Delmar Learning

OUTCOMES MEASUREMENT:
Tests 40%
Quizzes 20%
Project 10%
Discussion 10%
Final Examination 20%

ATTENDANCE:
Attendance at all classes is mandatory.

COURSE CONTENT:

*Introduction to Nutrition and Dental Health*
Phinney & Halstead, Chapter 5 page 69
LEARNING EXPERIENCES:
The student will describe the dental assistant’s role in nutrition and the patient, nutrients and the role they play in energy, growth, maintenance, and well-being. 1 hour (Didactic)

*Nutrients*
Phinney & Halstead, Chapter 5 pages 69-75
LEARNING EXPERIENCES:
The students will be knowledgeable about nutrients including carbohydrates, fats and lipids, proteins, vitamins, minerals, and water. They will also learn about balancing energy.
5 hours (Didactic)

The Food Pyramid and Dietary Guidelines
Phinney & Halstead, Chapter 5 pages 69, 75-77
LEARNING EXPERIENCES:
The student will understand the recommended food groups and recommended servings a day. They will also learn how to read nutrition labels.
2 hours (Didactic)

Dietary Analysis
Phinney & Halstead, Chapter 5 pages 69-70
LEARNING EXPERIENCES:
The student will learn how to use diet analysis with their patients, keeping a diet diary and using the diet analysis form. The students will keep a diary and after three days will review and counsel a fellow student. The student will refer to the food pyramid for daily allowances and will highlight the empty calories.
2 hours (Didactic) 5 hours (Laboratory)

CONTENT:

1. Nutrition
   a. Nutrients
      • Carbohydrates
      • Fats and Lipids
      • Proteins
      • Vitamins
         - Fat-Soluble Vitamins
         - Water-Soluble Vitamin
      • Minerals
         - Major Minerals
         - Trace Minerals
      • Water
   b. Balancing Energy
      • Nutrition Labels
         - Listed Items on Labels
   c. Eating Disorders
      • Chronic Dieting Syndrome
      • Bulimia
      • Anorexia Nervosa
      • Diet and Culture

TEST
FINAL EXAMINATION
Course Syllabus

FALL SEMESTER

NAME OF COURSE: DA 105 Practice Management

CREDITS: 30 hours (Didactic) 10 hours (Laboratory)

METHODOLOGY: Lecture, discussion, and laboratory

INSTRUCTOR: Michelle Racette, RDH and Audrey Morin

COURSE DESCRIPTION:
The purpose of this course is to give the student knowledge of the administrative role of the dental assistant and the basic dental office administrative procedures. Skills emphasized include telephone techniques, interpersonal relations, written communication, records management, and data entry.

TEXT:
1. Dental Assisting, A Comprehensive Approach, Phinney & Halstead
   3rd Edition, Thomson Delmar Learning
2. Practice Management for the dental Team Sixth Edition, Betty Ladley Finkbeiner and Charles Allen Finkbeiner, Mosby

OUTCOMES MEASUREMENT:
Tests 60%
Assignments 30%
Class Discussion 10%

ATTENDANCE:
Attendance at all classes is mandatory.

COURSE CONTENT

Business and Communication Skills
Phinney & Halstead, Chapter 36 pages 893-899

LEARNING EXPERIENCES:
The student will be taught about the reception area and the dental receptionist and business office staff including dental receptionist and dental office bookkeeper. They will learn about dentistry marketing and the U.S. postal services including USPS services. They will utilize telephone techniques including basic telephone techniques, call types, answering calls, placing callers on hold, taking messages, outgoing calls, long-distance calls, English as a second language, and telephone and business office technology.
6 hours (Didactic)

**Business Office Systems**
Phinney & Halstead, Chapter 36 pages 899-911, 915-925
LEARNING EXPERIENCES:
The student will be knowledgeable in business office systems including common dental office software, database management, and computer safety. They will apply patient scheduling techniques including appointment books, computer scheduling, appointment book entries, and recall patients. They will be aware of dental records management including equipment and supplies for record management, patient chart filing, record confidentiality, and the daily schedule. They will understand accounts receivable including patient fees, patient account management including pegboard account management, computerized account management system, monthly billing, financial information, collection management, special collection situations, and recording payment. The students will also be taught about accounts payable including inventory supply systems, account payment, petty cash, and payroll.

6 hours (Didactic)

**Dental Insurance**
Phinney & Halstead, Chapter 36 pages 912-915
LEARNING EXPERIENCES:
This section teaches the student about patient account management including dental insurance, capitation program, contract fee schedule, direct reimbursement programs, managed care plans, submitting dental insurance claims, and dental service payments.

6 hours (Didactic)

**Employment Strategies**
Phinney & Halstead, Chapter 37 pages 927-936
LEARNING EXPERIENCES:
This section identifies ways to obtain national certification. The student will be able to explain how to obtain employment and identify types of practices including solo or partnership practice, group practice, dental specialty practice, and other employment choices. They will understand how to go about employment search. The student will prepare a cover letter and Resume. They are taught how to set up an interview and explain the interview process including leaving interview and following up and receiving an employment offer; Professional conduct during employment including terminating employment and continued success.

6 hours (Didactic) 4 hours (Laboratory)

**Dental Office Computerized Simulation**
Eaglesoft Computer System
LEARNING EXPERIENCES:
This section is a review of new technology in the business office including information systems, operations and profitability of the information system, software selection, and integrated applications. The student will learn electronic filing and electronic mailing, options for the electric appointment book, electronic management systems, electronic banking, and accounts payable software. Students will work with electronic dental office documents and use charting symbols and abbreviations, learn record management and maintenance, and recording of procedures.
6 hours (Didactic) 6 hours (Laboratory)

CONTENT:

1. Reception Area
2. Dental Receptionist and Business Office Staff
   a. Dental Receptionist
   b. Dental Office Bookkeeper
3. Dentistry Marketing
4. U.S. Postal Service
   a. USPS Services
5. Telephone Technique
   a. Basic Telephone Techniques
   b. Call Types
   c. Answering Calls
   d. Placing Callers on Hold
   e. Taking Messages
   f. Outgoing Calls
   g. Long-Distance Calls
   h. English as a Second Language
   i. Telephone and Business Office Technology

TEST

6. Business Office Systems
   a. Common Dental Office Software
      • Word Processing
      • Graphics
      • Spreadsheets
   b. Database Management
   c. Computer Safety
      • Computer Ergonomics and Eye Care
      • Infection Control for Keyboards
7. Patient Scheduling
a. Appointment Books
   - Appointment Book Matrix
   - Special Patient Appointment Times
   - Other Scheduling Concerns
b. Computer Scheduling
c. Appointment Book Entries
d. Recall Patients
   - Computer Recall
   - Advance Appointment Scheduling
   - Chronological Card File
   - Color-Tagged Card File

TEST

8. Dental Records Management
   a. Equipment and Supplies for Record Management
   b. Patient Chart Filing
      - Tickler File
c. Record Confidentiality
   - Archival Storage
d. Daily Schedule

9. Accounts Receivable
   a. Patient Fees

10. Patient Account Management
    a. Pegboard System of Account Management
        - Day Sheets
        - End-of-Month Balancing
    b. Computerized Account Management System
    c. Monthly Billing
       - Payment Options
d. Financial Information
    - Credit Reports

TEST
    e. Dental Insurance
    f. Capitation Program
g. Contract Fee Schedule Plan
    h. Direct Reimbursement Plans
    i. Managed Care Plans
    j. Submitting Dental Insurance Claims
       - Insurance Schedule of Benefits

TEST
    k. Dental Service Payment
       - Cash Payments
       - Check Payments
• Credit Cards
• Loans
l. Collection Management
  • Collection Letters
m. Special Collection Situations
n. Recording Payments

11. Accounts Payable
a. Inventory Supply Systems
  • Receiving Supplies
  • Storing Supplies
b. Account Payment
  • Nonsufficient Funds
  • Stop Payment
c. Petty Cash
d. Payroll

TEST

CHAPTER TEST

12. Eaglesoft Dental Office Computerized Simulation
  a. Viewing and Editing Providers
  b. Viewing and Editing Patients
  c. Attaching an Insurance Company to a Policy Holder
  d. Attaching an Insurance Company to a Dependant
  e. Scheduling Daily Appointments
  f. Processing a Walkout Statement
  g. Posting Statements
  h. Reviewing Account Ledger
  i. Accepting an Account Payment or Payment on A Payment Plan
  j. New Patient Setup
  k. On Schedule Setup
    • Scheduler Preferences
    • Provider Hours

13. Employment Strategies
  a. Obtaining National Certification
  b. Employment
    • Solo or Partnership Practice
    • Group Practice
    • Dental Specialty Practice
    • Other Employment Choices
  c. Employment Search
  d. Preparing a Cover Letter and Resume
    • Cover Letter
    • Resume
  e. Setting up an Interview
  f. Interview Process
• Leaving an Interview and Following Up
• Receiving an Employment Offer

g. Professional Conduct During Employment
• Terminating Employment
• Continued Success
DENTAL ASSISTANT
FALL SEMESTER

Course: Computer Applications
Lecture and Lab

INSTRUCTOR: Audrey Morin

COURSE DESCRIPTION:

This course will introduce the learner in the use of computers and applications as well as
an understanding of concepts underlying hardware, software, and connectivity. The
student will demonstrate responsible use of technology and an understanding of ethics
and safety issues in using electronic media, and demonstrate the ability to use technology
for research, problem solving, and communication.

METHODS OF TEACHING
Lecture and Discussion
Lab

OUTCOME MEASUREMENT:
Assignments 50%
Tests 50%

ATTENDANCE:
Attendance at all classes is mandatory.
CONTENT (According to VTE Frameworks)
1. Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity.
   a. Select and utilize the appropriate technology to solve a problem or complete a task.
   b. Demonstrate file management skills (e.g., install new software, compress and expand files as needed, download files as appropriate).
   c. Differentiate between different operating systems and demonstrate use of at least one to open and switch between programs and files.
   d. Identify and demonstrate resolutions to simple hardware and software problems as they occur (e.g., frozen screen, disk error, printing problems).
   e. Save, retrieve, load, format, and import data into, and export a variety of electronic documents (word processing, spreadsheet, database, and desktop publishing).
   f. Demonstrate the proper use of a variety of external peripherals and how they connect to a computer.
   g. Illustrate methods of selecting and using search engines.
   h. Send, receive, and manage electronic correspondence and files, in accordance with school policy.
   i. Demonstrate proper use of electronic proofreading tools and explain reasons why these shouldn’t be relied upon solely.
2. Demonstrate responsible use of technology and an understanding of ethics and safety issues in using electronic media.
   a. Identify ways in which technology is used in the workplace and in society.
   b. Summarize the rights and responsibilities of the school’s Acceptable Use Policy.
   c. Explain laws restricting use of copyrighted materials on the Internet.
   d. Discuss the concerns about electronic communications, privacy and security, including protection from spyware and viruses.
3. Demonstrate ability to use technology for research, problem solving, and communication.
   a. Locate, evaluate, collect, and process information from a variety of electronic sources.
   b. Demonstrate the use of telecommunications and other media to interact or collaborate with peers, experts, and other audiences.
   c. Demonstrate the use of appropriate electronic sources to conduct research (e.g., Web sites, online periodical databases, and online catalogs).
   d. Demonstrate proper style (correct citations) when integrating electronic research results into a research project.
   e. Collect, organize, analyze, and graphically present data using the most appropriate tools.
   f. Present information, ideas, and results of work using any of a variety of communications, technologies (e.g., multimedia presentations, Web pages, videotapes, desk-top-published documents).
g. Identify capabilities of technology resources and describe how they can be used for lifelong learning.

h. Demonstrate the proper use of electronic tools and office communication equipment (telephone, fax, copier, etc).
Course Syllabus

FALL SEMESTER

NAME OF COURSE: DA 106 Biomedical Sciences  
(General Anatomy and Physiology)

CREDITS: 20 Hours (Didactic)

METHODOLOGY: Lecture and discussion, required readings, text assignments, and audio-visual aids.

INSTRUCTOR: Michelle Racette, RDH

COURSE DESCRIPTION:
This course provides the basic knowledge and understanding of the normal structure and function of the human body, including body planes and cavities, the cell, tissue types and characteristics, the musculo-skeletal system, the nervous/sensory system, blood and the circulatory system, the lymphatic system, the respiratory system, and the excretory/reproductive systems, the endocrine system, and the digestive system. This course is designed to provide accurate information about the structure and function of the human body. It is planned for students with a minimal background in the physical and biological science who are pursuing careers in allied health fields.

COURSE OUTCOMES:
1. The learner will demonstrate knowledge of anatomy and physiology as it pertains to the human body.
2. The learner will demonstrate knowledge of basic biochemistry as it pertains to the human body.

TEXT:
1. Dental Assisting, A Comprehensive Approach, Phinney & Halstead  
3rd Edition, Thomson Delmar Learning

OUTCOME MEASUREMENT:
Tests 50%
Quizzes 30%
Assignments 20%

ATTENDANCE: Attendance in all classes is mandatory.
COURSE CONTENT:

Terminology of Anatomy
Phinney & Halstead, Chapter 6 pages 84-88
LEARNING EXPERIENCES:
The student will be able to list the body systems, body planes and directions, body cavities, and the basic structure and functions of the cell.
1 hours (Didactic)

The Nervous System
Phinney & Halstead, Chapter 6 pages 94-96
LEARNING EXPERIENCES:
The students will be able to list the functions of the nervous system, structure of the nervous system, the spinal cord and spinal nerves, the brain and cranial nerves, and common diseases of the nervous system.
2 hours (Didactic)

The Circulatory System
Phinney & Halstead, Chapter 6 pages 98-100
LEARNING EXPERIENCES:
The student will be able to explain the functions of the circulatory system, parts of the circulatory system, and common diseases and conditions of the circulatory system.
2 hours (Didactic)

The Lymphatic System
Phinney & Halstead, Chapter 6 pages 105-106
LEARNING EXPERIENCES:
The student will be able to list the functions of the lymphatic system, parts of the lymphatic system, functions of the immune system, and common diseases and conditions of the lymphatic and immune systems.
2 hours (Didactic)

The Muscular System
Phinney & Halstead, Chapter 6 pages 90-94
LEARNING EXPERIENCES:
The student will be able to list the functions of the muscular system, types of muscles, muscle characteristics, muscle attachments, how muscles function, and common conditions and diseases of the muscular system.
3 hours (Didactic)
The Skeletal System
Phinney & Halstead, Chapter 6 pages 88-90
LEARNING EXPERIENCES:
The student will be able to explain the functions of the skeletal system, divisions of the skeletal system, bone composition, types of joints, and common diseases and conditions of the skeletal system.
3 hours (Didactic)

The Respiratory System
Phinney & Halstead, Chapter 6 pages 103-105
LEARNING EXPERIENCES:
The student will be able to list the functions of the respiratory system, parts of the respiratory system, and common diseases of the respiratory system.
2 hours (Didactic)

The Digestive System
Phinney & Halstead, Chapter 6 pages 100-103
LEARNING EXPERIENCES:
The student will be able to explain the functions of the digestive system, parts of the digestive system, and common diseases and conditions of the digestive system.
3 hours (Didactic)

The Endocrine/Reproductive System
Phinney & Halstead, Chapter 6 pages 96-98
LEARNING EXPERIENCES:
The student will be able to list the functions of the endocrine system, parts of the endocrine system, explain dental concerns related to the reproductive system, explain common diseases and conditions of the endocrine and reproductive system.
1 hour (Didactic)

The Urinary and Integumentary System
Power Point
LEARNING EXPERIENCES:
The student will be able to list the basic functions and parts of the urinary and integumentary systems.
1 Hour (Didactic)

CONTENT:
1. Body Systems
2. Body Planes and Directions
3. Body Cavities
4. Basic Structure and Functions of the Cell

QUIZ

5. Skeletal System
   a. Functions of the Skeletal System
   b. Divisions of the Skeletal System
   c. Bone Composition
   d. Types of Joints
   e. Common Diseases and Conditions of the Skeletal System

QUIZ

6. Muscular System
   a. Functions of the Muscular System
   b. Types of Muscles
      • Striated Muscles
      • Cardiac Muscles
      • Smooth Muscles
   c. Muscle Characteristics
   d. Muscle Attachments
   e. How Muscles Function
   f. Common Conditions and Diseases of the Muscular System

QUIZ

7. Nervous System
   a. Functions of the Nervous System
   b. Structure of the Nervous System
   c. The Spinal Cord and Spinal Nerves
   d. The Brain and Cranial Nerves
   e. Common Diseases of the Nervous System

QUIZ

8. Endocrine System and Reproductive System
   a. Functions of the Endocrine System
   b. Parts of the Endocrine System
   c. Reproductive System
   d. Common Disease and Conditions of the Endocrine and Reproductive Systems

QUIZ

9. Circulatory System
   a. Functions of the Circulatory System
   b. Parts of the Circulatory System
• Heart
• Blood Vessels, Arteries, Veins, and Capillaries
• Blood
• Blood Groups
c. Common Diseases and Conditions of the Circulatory System

QUIZ

10. Digestive System
   a. Functions of the Digestive System
   b. Parts of the Digestive System
      • Alimentary Canal
      • Accessory Organs
   c. Common Diseases and Conditions of the Digestive System

TEST

11. Respiratory System
   a. Functions of the Respiratory System
   b. Parts of the Respiratory System
   c. Common Diseases of the Respiratory System

QUIZ

12. Lymphatic and Immune System
   a. Functions of the Lymphatic System
   b. Parts of the Lymphatic System
   c. Functions of the Lymphatic System
   d. Common Diseases and Conditions of the Lymphatic and Immune Systems

QUIZ

13. Urinary and Integumentary System
   a. Functions of the Urinary System
   b. Parts of the Urinary System
   c. Functions of the Integumentary System

QUIZ

CHAPTER TEST
FALL SEMESTER

NAME OF COURSE: DA 106 Biomedical Sciences
(Microbiology)

CREDITS: 10 hours (Didactic)

METHODOLOGY: Lecture and discussion

INSTRUCTOR: Michelle Racette, RDH

COURSE DESCRIPTION:
This course presents to the learner the role of microbes in health and disease and the consequent significance of microbe control. The learner will gain knowledge in disease transmission control that will be carried over into sterilization.

TEXT:
1. Dental Assisting, A Comprehensive Approach, Phinney & Halstead
   3rd Edition, Thomson Delmar Learning

OUTCOMES MEASUREMENT:
Tests 40%
Quizzes 20%
Discussion 20%
Final Examination 20%

ATTENDANCE:
Attendance at all classes is mandatory.

COURSE CONTENT:

Introduction to Microbiology and Disease Transmission
Phinney & Halstead, Chapter 10 pages 184-186

LEARNING EXPERIENCES:
The student will be able to identify important people in microbiology including Anton Van Leeuwenhoek, Ferdinand Julius Cohn, Louis Pasteur, Robert Koch, and Richard Julius Petri. They will also receive a basic understanding of disease transmission.
1 hour (Didactic)

Groups of Microorganisms
Phinney & Halstead, Chapter 10 pages 186-193

LEARNING EXPERIENCES:
The student will understand bacteria’s need for oxygen, bacteria morphology, and disease examples caused by bacteria, disease examples caused by protozoa, disease examples caused by rickettsiae, disease examples caused by yeasts and molds, mad cow disease, Creutzfeldt-Jakob disease and disease examples caused by viruses.
2 hours (Didactic)

Disease Transmission
Phinney & Halstead, Chapter 11 pages 203-206
LEARNING EXPERIENCES:
The student will understand cross-contamination pathways.
1 hour (Didactic)

Modes of Disease Transmission
Phinney & Halstead, Chapter 11 page 206
LEARNING EXPERIENCES:
The student will be knowledgeable in the chain of infection including the agent, reservoir, portal of exit, mode of transmission, portal of entry, and the host.
2 hours (Didactic)

Body Defenses Against Disease
Phinney & Halstead, Chapter 10 pages 196-197
LEARNING EXPERIENCES:
The student will learn how the body resists diseases including infection and immunity.
1 hours (Didactic)

Disease of Major Concern to Dental Healthcare Workers
Phinney & Halstead, Chapter 10 pages 193-196
LEARNING EXPERIENCES:
The student will describe diseases of major concern to the dental assistant including herpes simplex, viral hepatitis, human immunodeficiency virus, and acquired immunodeficiency syndrome.
2 hours (Didactic)

Prevention of Disease Transmission
Phinney & Halstead, Chapter 11 page 206
LEARNING EXPERIENCES:
The student will identify breaking the chain of infection between agent and reservoir, between reservoir and portal of exit, between portal of exit and mode of
transmission, between mode of transmission and portal of entry, between portal of entry and host, and between host and agent.
1 hour (Didactic)

CONTENT:

2. Important People in Microbiology
   a. Anton Van Leeuwenhoek
   b. Ferdinand Julius Cohn
   c. Louis Pasteur
   d. Robert Koch
   e. Richard Julius Petri

3. Groups of Microorganisms

4. Bacteria
   a. Bacteria’s Need for Oxygen
   b. Bacterial Morphology
   c. Disease Examples Caused by Bacteria
      • Tuberculosis
      • Diphtheria, Pertussis, and Tetanus
      • Strep Throat
      • Staphylococcal Infections

5. Protozoa
   a. Disease Examples Caused by Protozoa
      • Amebic Dysentry
      • Periodontal Disease
      • Malaria

6. Rickettsiae
   a. Disease Examples Caused by Rickettsiae
      • Rocky Mountain Spotted Fever
      • Typhus
      • Head Lice

7. Yeasts and Molds
   a. Disease Examples Caused by Yeasts and Molds
      • Candidiasis
      • Tinea

8. Prions
   a. Mad Cow Disease
   b. Creutzfeldt-Jakob Disease

QUIZ

9. Viruses
   a. Disease Examples Caused by Viruses
• Measles, Mumps, and Rubella
• Poliomyelitis
• Chickenpox
• Common Cold and Influenza

10. Diseases of Major Concern to the Dental Assistant
   a. Herpes Simplex
   b. Viral Hepatitis
      • Hepatitis A
      • Hepatitis B
      • Hepatitis C
      • Hepatitis D
      • Hepatitis E
   c. Human Immunodeficiency Virus
   d. Acquired Immunodeficiency Syndrome

11. How the Body Resists Diseases
   a. Infection
   b. Immunity

12. Chain of Infection
   a. Agent
   b. Reservoir
   c. Portal of Exit
   d. Mode of Transmission
   e. Portal of Entry
   f. Host

QUIZ
TEST

FINAL EXAMINATION
Course Syllabus

FALL/SPRING SEMESTER

NAME OF COURSE: DA 107 Laboratory Procedures
(Dental Materials)

CREDITS: 35 Hours (Didactic) – 30 Hours (Laboratory)

METHODOLOGY: Lecture and demonstration and student practice

INSTRUCTORS: Michelle Racette, RDH

COURSE DESCRIPTION:
This course is designed to provide the learner with an understanding of the evolution and development of the science of dental materials, why the particular materials and techniques are used, and finally how to prepare each of the materials.

LEARNING EXPERIENCES:
1. The student will have basic understanding of the principles of materials science.
2. The student will be able to apply those principles to the selection, handling, and better understanding of the various materials currently used.
3. The student will be able to adapt the knowledge of the basic science and the behavior of existing materials to the new materials and techniques that are rapidly evolving.

OUTCOMES MEASUREMENT: Tests 30%, quizzes 20% written assignments 20%, practical 20%, discussion 10%,

TEXT:
1. Dental Materials, Clinical Applications for Dental Assistants and Dental Hygienists 2nd Edition
   Hatrick, Eakle, Bird, W. B. Saunders Co.
2. Dental Assisting A Comprehensive Approach, Phinney & Halstead, 3rd Edition
   Thomson Delmar Publishing

ATTENDANCE:
Attendance at all classes is mandatory
COURSE CONTENT:

*Introduction to Dental Materials*
Hatrick, Eakle, Bird, Chapter 1, Text pp. 1-4

LEARNING EXPERIENCES:
The student will be able to explain the importance of dental materials for the allied oral health practitioner and explain why it is necessary that they have an understanding of dental materials for the delivery of dental care. Students will discuss what EVDM is and the questions you might ask yourself or your practice to make sure you are increasing the potential for successful patient care outcomes. They will review the historical development of dental materials and list the agencies responsible for setting standards and specifications of dental materials including the American Dental Association, the Food and Drug Administration, and international agencies. They will also be able to list the requirements necessary for a product to qualify for the ADA seal of acceptance.

1/2 Hour (didactic)

*Oral Environment and Patient Considerations*
Hatrick, Eakle, Bird, Chapter 2, Text pp. 5–13

LEARNING EXPERIENCES:
This section lists the qualities of the oral environment that make it challenging for the long-term clinical performances of dental materials and describes the long-term clinical requirements or therapeutic and restorative materials. It discusses types of biting forces and the tooth structures most ideally suited to them. The student will define stress, strain, ultimate strength, thermal conductivity, thermal expansion and contraction, and biocompatibility. They will describe the effects of moisture and acidity on dental materials; the clinical significance of galvanism and how it can be prevented; the process used to achieve mechanical, chemical and bonding retention; the factors that determine successful adhesion, including wettability, viscosity, film thickness, and surface characteristics; microleakage and how this can lead to recurrent decay and postoperative sensitivity; tooth color in terms of hue, value, and chroma; and the importance of detection of restoration and methods for detection.

1/2 Hour (didactic)

*Physical Properties of Dental Materials*
Hatrick, Eakle, Bird, Chapter 3, Text pp. 14-19

The student will be able to define primary and secondary bonds and give an example of how each determines the properties of the material. They will be able to list the three forms of matter and give a defining characteristic of each. The student will define density, hardness, elasticity, stiffness, proportional limit, ductility, malleability, brittleness, viscosity, and thixotropic materials, and how these properties apply to restorative dental materials. In addition, they will differentiate between toughness and resilience, and among therapeutic, preventive, and restorative materials. They will be able to list the component classifications that make up a
dental material. Lastly, they will be able to describe the reaction stages a material undergoes to acquire its final state and the variables in the manipulation of a material.

1 Hour (didactic)

**Safety/handling of Dental Materials**
Hatrick, Eakle, Bird, Chapter 4, Text pp. 20 – 32

**LEARNING EXPERIENCES:**
The student will identify job-related health and safety hazards for employees in dental offices and explain methods of prevention including exposure to particulate matter and biologic contaminants. They will explain the components of the Occupational Safety and Health Administration Hazard Communication Standard. The student will describe ways that chemicals can enter the body including skin, inhalation, and ingestion, describe the employee and employer responsibility for safety training, and describe the basic infection control methods for the handling of dental materials in the treatment area.

2 Hours (didactic)

**Dental Gypsum Products**
Hatrick, Eakle, Bird,, Chapter 15, Text pp. 202 – 216

**LEARNING EXPERIENCES:**
This section teaches the student to differentiate between negative and positive reproduction, and among diagnostic casts, working casts, and dies. The student will describe and explain the chemical and physical nature of gypsum products, and the manufacturing process for gypsum products and how this affects their physical characteristics. The student will compare the strength, dimensional accuracy, solubility, and reproduction of detail of different gypsum products and list the products most appropriate uses. They will explain the initial and final set of gypsum and factors that affect setting time, setting expansion, and strength. They will prepare model plaster and stone for pouring the anatomic and base portion of maxillary and mandibular diagnostic casts, and then trim the casts.

3 Hours (didactic)  6 Hours (laboratory)

**Dental Cements**
Hatrick, Eakle, Bird, Chapter 13, Text pp. 157 – 174

**LEARNING EXPERIENCES:**
This unit discusses the uses of dental cements including pulpal protection, luting-cementation, restorations and surgical dressings. The student will discuss the properties of dental cements including strength, solubility, viscosity/film thickness, biocompatibility, retention and esthetics. They will learn how to manipulate dental cements including mixing, loading the restoration, removal of excess cement, cleanup, disinfection, and sterilization, and considerations during instrumentation. The student will understand the advantages and disadvantages, uses, and learn how to manipulate zinc oxide eugenol, zinc phosphate, zinc polycarboxylate, glass ionomer cement, traditional glass ionomer cements, hybrid ionomer cements, and resin-based cements.
3 Hours (didactic)  3 Hours (laboratory)

*Principles of Bonding*
Hatrick, Eakle, Bird, Chapter 5, Text pp. 33 – 48

**LEARNING EXPERIENCES:**
The student will discuss the effects of acid etching on enamel and dentin and describe the basic steps of bonding and the agents used for bonding. They will discuss the factors that interfere with good bonding and define the correct terms used to describe the various bonding procedures. The student will describe the amalgam bonding technique, the bonding of orthodontic brackets, and bonding of endodontic posts. They will understand the differences in bonding to enamel, dentin, metal and porcelain and list the factors that contribute to tooth sensitivity after bonding.

2 Hours (Didactic)

*Dental Amalgam*
Hatrick, Eakle, Bird, Chapter 9, Text pp. 111 - 122

**LEARNING EXPERIENCES:**
The student will discuss the safety of amalgam and list the main components in dental amalgam. They will describe the advantages of high-copper amalgams, the role of the gamma-2 phase on corrosion, the particle shapes in lathe-cut, admix, and spherical alloys and their effect on the condensation resistance of freshly mixed amalgam. They will define creep, corrosion, and tarnish. They will discuss the effect of mixing time on the strength and manipulation of amalgam, the advantages and disadvantages of bonded amalgam restorations, and mercury hygiene in the dental office.

3 Hours (didactic)  4 Hours (laboratory)

*Casting Metals, Solders, and Wrought Metal Alloys*
Hatrick, Eakle, Bird, Chapter 10, Text pp. 123-133

The student will describe the differences among the types of gold alloy used for dental restorations and define karat and fineness. They will differentiate between high noble, noble, and base metal alloys. They will describe the characteristics need for porcelain bonding alloys and of metal used for casting partial denture frameworks, as well as the biocompatibility problems associated with some alloys. They will list metals used for solders and how they are used; describe the uses of wrought wire and how they differ from casting alloys; and describe the metals used for orthodontic brackets and how they bond to teeth, as well as the different types of metal wire for orthodontic arch wire. The student will also explain the purpose of a post, the various classifications of posts, and the types of materials used for preformed posts.

1 Hour (didactic)

*Dental Implants*
Hatrick, Eakle, Bird, Chapter 11, Text pp. 134-140

They will describe basic types of implant and different types of metals used for dental implants. They will explain osseointegration of an implant and discuss the clinical care of dental implant fixtures. They will explain the rationale for use of plastic instruments for cleaning implants and discuss when metal instruments can be
used. Lastly, they will list the home care aids for implants and explain how they are used.

1 Hour (didactic)

*Composites, Glass Ionomers, and Compomers*
Hatrick, Eakle, Bird, Chapter 6, Text pp. 49 - 68

**LEARNING EXPERIENCES:**
In this section the student will describe various types of composite resin restorative materials and discuss the uses, advantages, and disadvantages of each. They will compare and contrast the similarities and differences among chemical-cure, light-cure, and dual-cure composite resins. The student will discuss the procedural differences between direct and indirect composite restorations and the composition of glass ionomer restoratives and their uses, advantages and disadvantages. They will explain the effect of fluoride releasing, resin-modified glass ionomer restorations on prevention of recurrent caries, and list the components of compomers and their uses.
3 Hours (didactic) 4 Hours (laboratory)

*Dental Ceramics*
Hatrick, Eakle, Bird, Chapter 8, Text pp. 99-122

The student will be able to describe the mechanism for bonding porcelain to metal for porcelain-fused-to-metal (PFM) crowns and list the types of alloys used and where most failures occur in PFM crowns. They will be able to list the methods of fabrication for all-ceramic restorations, explain how CAD/CAM technology is used to make impressions and fabricate a ceramic crown, and list the indications for porcelain veneers. They will be able to define chroma, value and hue and describe steps to ensure proper conditions for shade taking, and assist with placement of a composite resin restoration.
1 Hours (didactic)

*Dental Impression Materials*
Hatrick, Eakle, Bird, Chapter 14, Text pp. 175 – 201

**LEARNING EXPERIENCES:**
The student will describe the purpose of an impression, list the various categories of impression materials and explain their differences, and describe the important characteristics of impression material. They will describe the factors that make agar hydrocolloid a reversible material and list the components of agar hydrocolloid and discuss their functions. The student will define sol and gel and describe these states as they occur with the hydrocolloids and compare the accuracy of agar hydrocolloid with alginate. They will list the components of alginate impression material and discuss their functions, explain why it is an irreversible hydrocolloid, and list the supplies needed to make an alginate impression and how they are used. The student will demonstrate tray selection for alginate impressions, mixing alginate, loading and seating the tray, removing the impression, and properly handle the impression. They will list criteria for an acceptable alginate impression. The student will describe the different types of elastomers and discuss their similarities and differences among their physical properties. They will list the uses, advantages, and disadvantages of
polyether, polysulfide, and polyvinylsiloxane impression materials. They will also be able to explain the difference between a hydrophobic and hydrophilic impression material and why some impression materials should be poured immediately. Lastly, they will be able to discuss the uses of inelastic impression materials and why they are seldom used today.

3 Hours (didactic) 4 Hours (laboratory)

**Polymers for Prosthetic Dentistry**
Hatrick, Eakle, Bird, Chapter 16, Text pp. 217 - 235

**LEARNING EXPERIENCES:**
This unit describes the formation of long-chain polymers from monomers, the effect cross-linking has on the physical properties of polymers, and describes the stages of addition polymerization. The student will learn the function a free radical, list the important properties of acrylic resins, describe the procedure for heat processing a denture, and the importance of control of heat and pressure when processing a denture. They will explain the differences between hard and soft lining materials, list the differences and indications for long and short term soft liners, and describe the advantages and disadvantages of chairside and laboratory hard liners. The student will list the indications for the use of acrylic teeth versus porcelain teeth and describe the process for repairing acrylic dentures. They will describe and perform ultrasonic cleaning and lathe polishing of complete and partial dentures in the office, describe the home care regimen for complete and partial dentures, and list precautions patients should take when cleaning their dentures. The student will fabricate custom acrylic impression trays and record bases for complete denture procedures using light-cured material.

3 Hours (didactic) 2 Hours (laboratory)

**Dental Waxes**
Hatrick, Eakle, Bird, Chapter 18, Text pp. 252 – 258

**LEARNING EXPERIENCES:**
This unit will identify the common components and properties of dental waxes, describe the clinical/laboratory significance of each of the properties, and identify the three classifications of waxes. The student will differentiate between direct and indirect waxings and identify which property of dental waxes is most important to their difference and describe the usual color, form, and use of inlay, casting, baseplate, boxing, utility, and stick waxes. The student will obtain a bite registration using bite registration or utility wax.

2 Hours (didactic) 1 Hours (laboratory)

**Abrasion, Finishing, and Polishing**
Hatrick, Eakle, Bird, Chapter 12, Text pp. 143 – 156

**LEARNING EXPERIENCES:**
The student will define and discuss the purpose of abrasion, finishing, polishing, and cleansing. They will identify factors that affect the rate and efficiency of abrasion and compare the relative ranking of abrasives on restorations and tooth structures. They will identify methods by which dental abrasives are applies, list contraindications to
the use of abrasives of tooth structure and restorations, describe the clinical decisions used to determine which abrasive to use and procedure for finishing, polishing, or cleansing dental restorations or tooth structures. The student will describe the safety and infection control precautions taken by the operator when using abrasives. They will relate patient education instructions for prevention and removal of stain from tooth surfaces and restorations. The student will finish and polish a preexisting amalgam restoration and assist in polishing a preexisting composite restoration.

2 Hours (didactic) 1 Hours (laboratory)

Preventive and Bleaching Materials
Hatrick, Eakle, Bird, Chapter 7, Text pp. 69 – 98
LEARNING EXPERIENCES:
The student will be able to describe the use of fluoride in prevention, explain who fluoride protects teeth from caries, discuss the various methods for fluoride delivery, explain the benefit of using an antibacterial rinse in conjunction with fluoride, describe the antibacterial effects of chlorhexidine and the student will apply topical fluoride. The student will discuss the use of sealants for prevention of pit and fissure caries, describe the composition of sealants and the steps for applying sealants, and apply a pit and fissure sealant. The student will recite causes for tooth sensitivity, list various materials used for treating sensitive teeth, and explain how desensitizing agents work. They will describe the uses of a mouth guard, list the materials for the fabrication of mouth guards, and fabricate a mouth guard. The student will describe methods used to bleach teeth, discuss the similarities and differences among the materials used to bleach teeth, explain the differences between professionally supervised home bleaching and over-the-counter systems, and fabricate custom trays for home bleaching.

2 Hours (didactic) 3 Hours (laboratory)

Provisional Restorations
Hatrick, Eakle, Bird, Chapter 17, Text pp. 236 – 243
LEARNING EXPERIENCES:
The student will be able to state the purpose of provisional coverage, list examples of circumstances that may require provisional coverage, identify the criteria necessary for a high-quality provisional restoration, and list the properties of provisional materials. They will be able to distinguish among properties that are important for posterior coverage, anterior coverage, or both and they will be able to distinguish between intracoronal and extracoronal restorations. They will list the advantages and disadvantages of preformed and custom crowns, differentiate between direct and indirect fabrication techniques, list the advantages and disadvantages of acrylic and composite provisional materials, describe the technique for fabrication of metal, polycarbonate, custom, and cement provisional restorations, and list patient education and home care instructions. The student will fabricate and cement a custom provisional crown.

2 Hours (didactic) 2 Hours (laboratory)
CONTENT:

1. Introduction to Dental Materials
   a. Role of the Allied Oral Health Practitioner and Dental Materials
   b. Evidence-Based Decision Making
   b. Historical Development of Dental Materials
   c. Agencies Responsible for Standards
      • American Dental Association
      • Food and Drug Administration
      • International Agencies

QUIZ

2. Oral Environment and Patient Considerations
   a. Biocompatibility
   b. Biomechanics
   c. Force and Stress
   d. Moisture and Acid Levels
   e. Galvanism
   f. Temperature
   g. Retention
   h. Microleakage
   i. Esthetics
   j. Detection of Restorative Materials

QUIZ

3. Physical Properties of Dental Materials
   a. Physical Structure
      • Solids
      • Liquids
   b. Application
   c. Composition
   d. Reaction
   e. Manipulation

QUIZ

4. General Handling and Safety
   a. Materials Hazards in the Dental Environment
      • Exposure to Particulate Matter
      • Exposure to Biologic Contaminants
   b. Chemical Safety in the Dental Office
      • Hazardous Chemicals
      • Skin
• Inhalation
• Ingestion
c. Acute and Chronic Chemical Toxicity
   • Acute Chemical Toxicity
   • Chronic Chemical Toxicity
d. Personal Chemical Protection
   • Hand Protection
   • Eye Protection
   • Protective Clothing
   • Inhalation Protection
e. Control of Chemical Spills
   • Mercury Spill
   • Flammable Liquids
   • Acids
   • Eyewash
   • Ventilation
f. General Precautions for Storing Chemicals
g. Disposal of Chemicals
   • Empty Containers
   • Hazardous Waste Disposal
h. Occupational Safety and Health Administration Hazard Communication Standard
   • Hazard Communication Program
   • Labeling Exemptions
i. Bio-Aerosols in the Dental Setting
   • Dental Bio-Aerosols
   • Management of Bio-Aerosols
j. Patient Safety

TEST

5. Principles of Bonding
   a. Basic Principles of Bonding
      • Preparation for Bonding
      • Bonding to the Etched Surface
      • Surface Wetting
      • Bond Strength
      • Enamel Etching
      • Dentin Etching
      • Microleakage
      • Hypersensitive Teeth
   b. Clinical Applications of Bonding
      • Bonding of Restoration
      • Porcelain Bonding and Repair
      • Metal Bonding
• Amalgam Bonding
• Orthodontic Bracket Bonding
• Bonding of Endodontic Posts

TEST

6. Composites, Glass Ionomers, and Compomers
   a. Composite Resin and Other Direct-Placement Esthetic Restorative Materials
      • Composite Resin
      • Components
      • Classification of Composites by Filler Size
      • Physical Properties of Composites
      • Clinical Handling of Composites
      • Light Curing Units
      • Glass Ionomers
      • Hybrid (Resin-Modified) Ionomers
      • Compomers

TEST

b. Indirect Esthetic Restorative Materials
   • Indirect Composites

TEST

7. Preventive and Bleaching Materials
   a. Fluoride
      • Topical Versus System Effects
      • Protection Against Erosion
      • Bacteria Inhibition
      • Fluoride and Antibacterial Rinses for Control of Dental Caries
      • Methods of Delivery
      • Safety

TEST

b. Pit and Fissure Sealants
   • Purpose
   • Indications
   • Susceptibility of Teeth to Fissure Caries
   • Composition
• Working Time
• Color and Wear
• Placement
• Oxygen-Inhibited Layer
• Remineralization of Etched, Unsealed Enamel
• Etching Precautions
• Patient Record Entries
• Effectiveness
• Troubleshooting Problems with Sealants
• Glass Ionomer Cement as a Sealant

TEST
PRACTICAL EXAMINATION

c. Desensitizing Agents
   • Causes of Tooth Sensitivity
   • Function
   • Categories and Components

QUIZ
PRACTICAL EXAMINATION

d. Sports Guards and Bruxism Guards (Splints)
   • Sports Mouth Guards
   • Night Guards (Bruxism Mouth Guards)
   • Maintenance

QUIZ

e. Teeth Bleaching
   • How Bleaching Works
   • Types of Stains
   • In-Office Bleaching
   • Home Bleaching (Prescribed by the Dentist)
   • Over-the Counter Products
   • Role of the Dental Assistant or Hygienist
   • Potential Side Effects
   • Restorative Considerations
   • Contraindications
   • Retreatment

TEST
PRACTICAL EXAMINATION

CHAPTER TEST
8. Dental Ceramics
   a. Dental Ceramics (Porcelain)
      • Feldspatic Porcelain
      • Porcelain-Metal Restorations
      • Veneers
   b. Shade Taking
      • Hue, Chroma, and Value
      • Involving the Dental Assistant and the Patient
      • Lighting for Shade Taking
      • Matching the Shade
      • Characterizing the Shade

QUIZ

9. Dental Amalgam
   a. Dental Amalgam
      • Alloy Versus Amalgam
      • Silver-Based Amalgam Alloy Particles
      • Composition
      • Setting Transformation
      • Setting Reactions
      • Tarnish
      • Corrosion
      • Creep
      • Dimensional Change
      • Strength
      • Handling Characteristics of High-Copper Alloys
      • Manipulation of Amalgam
      • Bonding amalgam
      • Mercury Safety Procedures
      • Mercury-Free Amalgam

TEST

10. Casting Metals, solders, and Wrought Metal Alloys
    a. Casting Alloys
       • All-Metal Castings
       • Porcelain Bonding Alloys
       • Removable Prosthetic Casting Alloys
       • Biocompatibility
    b. Solders
       • Gold Solders
       • Silver Solders
    c. Wrought Metal Alloys
• Wire
• Endodontic Files and Reamers
d. Metal Used in Orthodontics
• Wires
• Brackets and Bands
• Lingual Retainer
e. Endodontic Posts
• Purpose
• Classification
• Custom Posts
• Pre-Formed Posts

QUIZ

11. Dental Implants
   a. Implant Materials
   • Subperiosteal Implants
   • Transosteal Implants
   • Endosseous Implants
   • Endosseous Implant Placement and Restoration
   • Maintenance
   • Homecare
   • Hygiene Visit
   • Implant Failure

QUIZ

12. Abrasion, finishing, and Polishing
   a. Finishing and Polishing
   • Factors Affecting Abrasion
   • Delivery Design of Abrasives
   • Materials Used in Abrasion
   • Preparations Used for Abrasion
   b. Finishing and Polishing Procedures
   • Margination and the Removal of Flash
   • Amalgam
   • Composite
   • Gold Alloy
   • Porcelain
   c. Polishing During an Oral Prophylaxis (Coronal Polishing)
   • Amalgam
   • Composite
   • Gold Alloys and Porcelain
   • Resin/Cement Interface
   • Implants
• Air Polishing and Air Abrasion
  d. Safety/Infection Control
  e. Patient Education

TEST
PRACTICAL EXAMINATION

13. Dental Cement
   a. Uses of Dental Cements
      • Pulpal Protection
      • Luting-Cementation
      • Restorations
      • Surgical Dressing
   b. Properties of Dental Cements
      • Strength
      • Solubility
      • Viscosity/Film Thickness
      • Biocompatibility
      • Retention
      • Esthetics
   c. Manipulation
      • Mixing
      • Loading the Restoration
      • Removal of Excess Cement
      • Cleanup, Disinfection, and Sterilization
      • Considerations During Instrumentation
   d. Dental Cements
      • Zinc Oxide Eugenol
      • Zinc Phosphate
      • Zinc Polycarboxylate
      • Glass Ionomer Cements
      • Traditional Glass Ionomer Cements
      • Hybrid Ionomer Cements (Resin Modified Glass Ionomer Cements
      • Resin Based Cements (Self-Adhesive Resin)

TEST
PRACTICAL EXAMINATIONS

14. Impression Materials
   a. Impression Trays
   b. Elastic Impression Materials
      • Hydrocolloids
      • Elastomers
TEST
PRACTICAL EXAMINATIONS

c. Inelastic Impression Materials
   • Dental Impression Compound
   • Impression Plaster
   • Zinc Oxide Eugenol Impression Material
   • Impression Wax
d. Disinfecting Impressions
   • Disinfecting Casts
   • Sterilizing Impression Trays

TEST

15. Gypsum Products
   a. Properties and Behaviors of Gypsum Products
      • Chemical Properties
      • Physical Properties
   b. Classification of Gypsum Products
      • Impression Plaster (Type I)
      • Model Plaster (Type II)
      • Dental Stone (Type III)
      • Dental Stone, High Strength (Type IV)
      • High-Strength, High-Expansion Dental Stone (Type V)
   c. Manipulation
      • Selection
      • Proportioning (water/Powder Ratio)
      • Mixing
      • Initial Setting Time- Working Time
      • Final Setting Time
      • Control of Setting Times
      • Fabricating and Trimming Diagnostic/Working Casts
      • Storage
      • Cleanup
      • Infection Control Issues
      • Separating the Impression from the Cast
      • Trimming
      • Metal-Plated and Epoxy Dies and Resin-Reinforced Die Stone
      • Investment Materials

TEST
PRACTICAL EXAMINATIONS

16. Polymers for Prosthetic Dentistry
   a. Review of Polymer Formation
• Cross-Linked Polymers
• Polymerization Reactions
b. Acrylic Resins (Plastics)
• Properties
• Acrylic Resin for Denture Bases
• Polymerization Reaction
c. Denture Liners
• Soft Lining Materials
• Hard Lining Materials
• Infection control Procedures
• Over-the-Counter Liners
d. Plastic (Acrylic) Teeth
e. Characterization of Dentures
f. Plastics for Maxillofacial Prostheses
g. Denture Repair
• Chemical-Cure Acrylic Repair Material
• Light-Cured Repair Material
h. Custom Impression Trays and Record Bases
• Chemical-Cured Tray and Record Base Material
• Light-Cured Tray and Record Base Material
i. Care of Acrylic Resin Dentures
• Home Care
• In-Office Care
• Storage of Dentures

TEST
PRACTICAL EXAMINATIONS

17. Provisional Restorations
a. Dental Procedures That May Require Provisional Coverage
b. Criteria for Provisional Coverage
• Maintain Prepared Tooth Position to Adjacent and Opposing Teeth
• Protect the Exposed Tooth Surfaces and Margins
• Protect the Gingival Tissues
• Provide Function and Esthetics
c. Properties of Provisional Materials
• Strength
• Hardness
• Tissue Compatibility
• Esthetics
• Handling
d. Provisional Materials
• Preformed/Prefabricated Crowns
• Stainless Steel Crowns
• Aluminum Shell Crowns
• Polycarbonate, Polymer, and Celluloid Crowns
• Customized Provisionals
• Acrylic Provisional Materials
• Composite Provisional Materials
  e. Intracoronal Cement Provisionals
  f. Patient Education

TEST
PRACTICAL EXAMINATIONS

18. Dental Waxes
   a. Composition and Properties
      • Melting Range
      • Flow
      • Excess Residue
      • Dimensional Change
   b. Classification of Waxes
      • Pattern Waxes
      • Processing Waxes
      • Impression Waxes
   c. Manipulation
   d. Lost Wax Technique

TEST
PRACTICAL EXAMINATIONS
Course Syllabus:

SPRING SEMESTER

NAME OF COURSE: DA 201 Dental Assisting II
               Clinical Externship

METHODOLOGY: Required reading, clinical journals, clinical participation

CREDITS 350 Hours

INSTRUCTOR: Michelle Racette, RDH

COURSE DESCRIPTION:
This experience is planned to bridge gap between the classroom and real practice. It allows the learner to acquire a familiarity with the responsibility and accountability entailed in the medical employee. A minimum of 350 externship hours is required.

TEXT:
1. Dental Assisting A Comprehensive Approach, Phinney & Halstead
   3rd Edition, Thomson Delmar Learning

OUTCOMES MEASUREMENT:
Evaluations from clinical rotations 50%
Faculty evaluations while observing the student function 50%

GRADE POLICY
The student is expected to receive no less than a grade of 80 during their first rotation, 85 second rotation, and a 90 for their last rotation in order to qualify successfully for graduation.

ATTENDANCE:
Attendance at all assigned clinical externships is mandatory.

CONTENT:

1. Clinical Experience
   a. Professional Attitude
   b. Personal Appearance
   c. Rapport
   d. Chairside Assisting Procedures
   e. Sterilization and Disinfection Techniques
   f. Performance
g. Radiology Techniques
h. Laboratory Procedures

2. Greeting patient
   a. Answering the telephone
   b. Scheduling appointments
   c. Preparing records
   d. Collecting fees

LEARNING EXPERIENCES:
During this phase of the students education they will be placed in area dental offices to put into practice all their education they received during the didactic portion of the program. The emphasis will be placed on the four handed chairside techniques, radiographics, and sterilization procedures. The clinical experience is divided so that the student rotates through general practices (300 hours and the specialty offices (30 hours) for a total of 330 hours. In addition, the students spends 20 hours in the operation of the reception area answering the telephone, bookkeeping appointments, and collecting fees.

CONTENT:
1. Professional Attitude
   a. Works well with auxiliary personnel
   b. Accepts constructive criticism
   c. Is interested in assigned task
   d. Performs assigned task without prompting
   e. Keeps constructively busy
2. Personal Appearance
   a. Wears hair in a neat manner
   b. Shoes are clean and polished
   c. Apparel is clean and neat
   d. Is professionalism apparent in this student’s dress
3. Rapport
   a. Utilizes tactful and courteous methods of communication with all patients
   b. Utilizes tactful and courteous methods of communication with the dentist and other auxiliary personnel
   c. Adapts to varied situations
4. Chairside Assisting Procedures
   a. Demonstrates the ability to seat the patient
   b. Demonstrates the ability to bib the patient
   c. Demonstrates the ability to prepare a topical anesthetic
   d. Demonstrates the ability to correctly load, pass, retrieve and dismantle a local anesthetic syringe
   e. Demonstrates proficiency in preparing dental instrument procedural trays
   f. Demonstrates the ability to identify operative dental instruments
   g. Demonstrates proficiency in the sequence of dental instruments, according to the needs of the respective dentist
h. Demonstrates the ability to anticipate by procedural methodology employed by the respective dentist
i. Demonstrates proficiency in maintaining a clear operating field within the oral cavity, without causing undue trauma to the tissues
j. Demonstrates proficiency in preparing and delivering cements, restorative materials, impression materials and other materials as required by the dentist
k. Demonstrates proficiency in charting and recording all treatment procedures
l. Demonstrates the ability to provide post-operative instruction to the patient, if required
m. Demonstrates the ability to dismiss the patient

5. Sterilization and Disinfection Techniques
   a. Utilize different types of sterilizers.
   b. Sterilizes Instruments
   c. Maintains asepsis throughout dental procedures
   d. Maintains sterility in the dental office according to specific standards that have been dictated by the dentist

6. Performance
   a. Demonstrates the ability to follow directions
   b. Demonstrates the ability to perform tasks without prompting or direct supervision
   c. Demonstrates a knowledge of dental terminology as it applies to the realm of dentistry
   d. Understands the concept of time allotments required for specific operative procedures when scheduling appointments
   e. Is this student courteous and concise when speaking with patients on the telephone and in the office

7. Radiology Procedures
   a. Utilize various Radiographic techniques.
   b. Process Radiographs
   c. Demonstrates the ability to expose radiographs according to specific standards that have been dictated by the dentist
   d. Demonstrates the ability to process radiographs according to specific standards that have been dictated by the dentist
   e. Demonstrates the ability to mount radiographs according to specific standards that have been dictated by the dentist

8. Laboratory Procedures
   a. Demonstrates proficiency in assigned laboratory tasks
Course Syllabus

SPRING SEMESTER

NAME OF COURSE: DA204 Clinical Sciences II
(Dental Specialties)

CREDITS: 63 hours (Didactic) 20 hours (Laboratory)

METHODOLOGY: Lecture and discussions, test assignments, power point presentations, guest lecturers, and clinical rotations

INSTRUCTOR: Michelle Racette, RDH

COURSE DESCRIPTION:
This course provides the basic knowledge and understanding of the eight specialties: Endodontics, Oral and Maxillofacial Surgery, Orthodontics, Periodontics, Fixed and Removable Prosthodontics, Pedodontics, Oral Pathology, and Dental Public Health.

TEXT:
1. Dental Assisting, A Comprehensive Approach, Phinney & Halstead
   3rd Edition, Thomson Delmar Learning

OUTCOMES MEASUREMENTS:
Tests 40%
Quizzes 30%
Written Assignments 20%
Discussions 10%

ATTENDANCE:
Attendance at all classes is mandatory

COURSE CONTENT

Oral Pathology
Phinney & Halstead, Chapter 26 pages 566-585
LEARNING EXPERIENCES:
The student will be able to define pathology and identify the dental assistant’s role in this specialty. They will characterize the process of inflammation, identify oral lesions according to placement, and identify oral disease and lesions related to biological agents, physical agents, chemical agents,
hormonal disturbances, developmental disturbances, and nutritional disturbances. The student will identify the conditions and lesions of oral neoplasms and lesions related to HIV and AIDS and describe the conditions related to miscellaneous disorders affecting the oral cavity.

6 hours (Didactic)

**Fixed Prosthodontics and Gingival Retraction**
Phinney & Halstead, Chapter 30 pages 689-716

LEARNING EXPERIENCES:
The student will be able to define the scope of fixed prosthodontics and explain dentist’s considerations when recommending various prostheses to a patient. They will be able to describe various types of fixed prostheses and their functions and dental materials used in fixed prostheses. The student will identify and explain CAD/CAM restorative system, explain the involvement of the laboratory technician in the fabrication of fixed prostheses, describe the role of the dental assistant in all fixed prosthetic treatments, explain techniques for retaining the prosthesis when there is little or no crown on the tooth, describe implant retainer prostheses, and explain techniques for maintaining fixed prostheses.

8 hours (Didactic) 5 hours (Laboratory)

**Removable Prosthodontics**
Phinney & Halstead, Chapter 32 pages 744-767

LEARNING EXPERIENCES:
The student will be able to define removable prostheses and list the reasons for using them, describe considerations about the patient related to removal prosthetic treatment, and explain the dental assistant’s role in removable prosthetic treatment. They will also be able to outline steps of the diagnostic appointment and consultation appointment and list the materials needed and required for case presentation. The student will describe advantages and disadvantages of the partial denture and complete denture, its components, and appointment schedules. They will explain types and steps of denture relining procedures, procedures for denture repair, steps to polish a removable prosthetic appliance, and explain the overdenture and the advantages and disadvantages related to it.

8 hours (Didactic) 5 hours (Laboratory)

**Endodontics**
Phinney & Halstead, Chapter 24 pages 504-526

LEARNING EXPERIENCES:
This unit defines endodontics and describes what an endodontist does. It describes pulpal and periapical disease, identifies diagnostic procedures, and identifies instruments and materials used in endodontic procedures and describes their function. The student will describe endodontic procedures and responsibilities of the dental assistant, endodontic retreatment, and explain surgical endodontic procedures and instruments used.
LEARNING EXPERIENCES:
This section describes the scope of periodontics, identifies members of the periodontal team and their roles. Describes the stages of periodontal disease, explains the diagnostic procedures involved in the patient’s first visit to the periodontal office, and identifies and describes periodontal instruments and their uses. The student will learn to describe nonsurgical and surgical procedures and the dental assistant’s role in each procedure and describe periodontal maintenance procedures and the patient’s role relating to each.

7 hours (Didactic) 1 hour (Laboratory)

LEARNING EXPERIENCES:
This unit defines pediatric dentistry as a specialty and describes the pediatric office and team members. It explains the common behavior characteristics of children of various ages, describes child behavior management techniques, and explains the role of the parent or guardian in pediatric dentistry. The student will identify common procedures and equipment unique to pediatric dentistry, explain common emergencies in pediatric dentistry and the treatment for these emergencies, and identify the signs of child abuse and the procedure for reporting suspected child abuse cases.

6 hours (Didactic)

LEARNING EXPERIENCES:
The student will define orthodontics and describe the orthodontic setting and define the role of the dental assistant in the orthodontic setting. They will define and describe occlusion and malocclusion, identify the causes of malocclusion, describe preventive, interceptive, and corrective orthodontics, and explain the procedure of tooth movement. The student will describe the preorthodontic appointment for diagnostic records and describe the consultation appointment and the roles of the assistant, patient, and orthodontist. They will differentiate between fixed and removable appliances, identify and describe the function of basic orthodontic instruments, describe the stages of orthodontic treatment, and explain the procedure for removing orthodontic appliances and how the teeth are kept in position after appliance removal.

6 hours (Didactic) 1 hour (Laboratory)

Oral and Maxillofacial Surgery
Phinney & Halstead, Chapter 25 pages 527-565
LEARNING EXPERIENCES:
This unit describes the scope of oral and maxillofacial surgery and identifies the surgical instruments used in various types of surgery and describes their function. The student will be taught the aseptic procedures followed in the oral surgeon’s office, describe evaluation procedures for new patients, how to prepare the patient for surgical treatment, explain surgical procedures, including tray setups and assisting responsibilities, and give postoperative instructions to patients. They will be able to list and describe biopsy techniques, describe temporomandibular joint disease, list and describe the types of dental implants and explain the surgical procedures for placing the implants, and explain the oral surgeon’s relationship with the hospital.
10 hours (Didactic) 2 hours (Laboratory)

Cosmetic Dentistry and Teeth Whitening
Phinney, & Halstead, Chapter 31 pages 717-743
LEARNING EXPERIENCES:
This section will teach the student to define cosmetic dentistry and describe what is involved in cosmetic dentistry, who performs cosmetic dentistry and education requirements, and the dental assistant’s role in cosmetic dentistry. They will learn the scope of cosmetic dentistry, describe fundamental principles that the cosmetic dentist must learn, discuss the basic elements of psychology and sociology that are considered for cosmetic treatment, and explain what the patient should consider when selecting a dentist for cosmetic treatment. The student will identify and describe specific procedures performed in cosmetic dentistry, including diagnosis and treatment planning, legal forms, and documentation. They will describe the role that oral photography has in cosmetic dentistry, the equipment needed, and how the patient is set up for photographs to be taken. They will describe why soft tissue surgery may be needed in cosmetic dentistry, how it is performed, and how lasers and electrosurgery are involved. They will explain why the dental team needs to know about occlusion in cosmetic dentistry, describe the types of restorations that are placed and the materials used for cosmetic restorations, and describe the marketing techniques for cosmetic dentistry.
5 Hours (Didactic) 3 hours (Laboratory)

CONTENT:

1. Oral Pathology
   a. Inflammation
   b. Diagnosing Oral Pathology
   c. Oral Lesions
• Above-Surface Lesions
• Below-Surface Lesions
• Even or Flat with Surface Lesions
• Flat or Above-Surface Lesions

f. Biological Agents
• Actinomycosis
• Herpes Simplex Apthous Ulcers
• Herpes Zoster
• Syphilis
• Thrush

g. Physical Agents
• Denture Irritation Causing Hyperplasia
• Amalgam Tattoo
• Radiation Injury
• Oral Piercing
• Tongue Splitting

h. Chemical Agents
• Aspirin Burn
• Nicotine Stomatitis
• Chewing Tobacco (Snuff) Lesion
• Hairy Tongue
• Gingival Hyperplasia
• Meth Mouth

i. Hormonal Disturbances
• Pregnancy Gingivitis
• Pyogenic Granuloma
• Puberty Gingival Enlargement

j. Developmental Disturbances
• Disturbances in Tooth Development
  a. Amelogenesis Imperfecta
  b. Ankylosis
  c. Anodontia
  d. Dentinogenesis Imperfecta
  e. Fusion
  f. Gemination
  g. Macronodontia
  h. Microdontia
  i. Neonatal Teeth
  j. Supernumerary Teeth
  k. Twinning
• Oral Tori
• Exostoses
• Fordyce’s Spots (Granules)
• Fissured Tongue
• Bifid Tongue
• Ankyloglossia

k. Nutritional Disturbances
   • Angular Cheilitis
   • Glossitis (Bald Tongue)

l. Neoplasms
   • Leukoplakia
   • Lichen Planus
   • Erythroplakia
   • Squamous Cell Carcinoma
   • Basal Cell Carcinoma
   • Papilloma
   • Fibroma

m. Oral Lesions Related to AIDS and HIV
   • Hairy Leukoplakia
   • Candida Albicans
   • Kaposi’s Sarcoma

n. Miscellaneous Disorders
   • Acute Necrotizing Ulcerative Gingivitis
   • Mucocele
   • Varix
   • Geographic Tongue
   • Anorexia Nervosa and Bulimia
   • Bell’s Palsy

QUIZ

2. Fixed Prosthodontics and Gingival Retraction
   a. Patient Considerations
      • Case Presentation
   b. Types of Fixed Prosthodontics
      • Crowns
      • Inlays and Onlays
      • Bridges
      • Veneers
         l. Direct Resin Veneers
         m. Indirect Resin Veneers
         n. Porcelain Veneers
   c. Types of Materials Used for Fixed Prostheses
      • Gold Casting Alloys
      • Tooth-Colored Cast Restorations
   d. CAD/CAM Restorative Systems
   e. Role of the Laboratory Technician
   f. Role of the Dental Assistant
      • Fabrication of Prostheses in Dental Laboratory
g. Retention Techniques
   • Core Build-Ups
   • Retention Pins
   • Post-Retained Cores

h. Implant Retainer Prostheses
i. Maintenance of Fixed Prosthodontics
   • Fixed Prostheses Maintenance
   • Dental Implant Maintenance

j. Advanced Chairside Functions

k. Gingival Retraction

l. Types of Gingival Retraction
   • Mechanical Retraction
   • Retraction Systems
   • Chemical Retraction
   • Surgical Retraction

TEST
PRACTICAL EXAMINATION

3. Removable Prosthodontics
   a. Patient Considerations
   b. Dental Assistant’s Role
   c. Diagnosis and Treatment Planning
   d. Consultation Appointment
   e. Removable Partial Denture
      • Advantages of a Removable Partial Denture
      • Considerations for a Partial Denture
      • Components of a Removable Partial Denture
         o. Metal Framework
         p. Rests
         q. Connectors
         r. Retainer
         s. Denture Base
         t. Artificial Teeth
         • Partial Denture Procedure
   f. Complete Denture
      • Considerations for a Complete Denture
      • Necessities for Successful Denture Treatment
      • Components of a Complete Denture
         u. Denture Base
         v. Denture Teeth
         • Immediate Dentures
         • Examination and Diagnosis Appointments for Complete Dentures
• Denture Construction Between Appointments
• Denture Construction Between Appointments-Laboratory Procedures
• Denture Construction Between Appointments-Final Laboratory Procedures
• Denture Adjustment Appointments

g. Denture Reline
h. Denture Repair
i. Polishing Removable Prostheses
j. Over Denture
  • Endosseous Implant and Overdenture for Implant

TEST
PRACTICAL EXAMINATIONS

4. Endodontics
  • Endodontic Team
  • Progress of Pulpal and Periapical Diseases
    1. Pulpal Diseases
    2. Periapical Diseases
  • Endodontic Diagnosis
    • Medical History
    • Dental History
    • Clinical Examination and Pulp Testing
      w. Radiographs
      x. Palpation
      y. Percussion
      z. Mobility
      aa. Cold Test
      bb. Heat Test
      cc. Electric Pulp Testing/Vitality Scanner
      dd. Transillumination Test
      ee. Selective Anesthesia
      ff. Caries Removal
        • Treatment Plan

QUIZ

c. Endodontic Instruments
  • Characteristics of Intracanal Instruments
  • Barbed Broaches
  • Files
  • Reamers
  gg. Rotary Intracanal Instruments
    • Endodontic Organizers
• Rubber Stops
• Gate-Glidden Drills
• Peeso Reamers
• Lentulo Spirals
• Endodontic Spoon Excavator
• Endodontic Explorer
• Endodontic Spreaders, Pluggers, and the Glick #1

d. Endodontic Materials
• Absorbent Paper Points
• Gutta Percha
• Irrigation Solutions
• Root Canal Disinfecting, Cleaning, and Lubricating
• Root Canal Sealers/Cements

e. Equipment Used in Endodontic Procedures

f. Sterilization Procedures

QUIZ

g. Endodontic Procedures
• Root Canal Treatment
• Endodontic Retreatment
• Pulpectomy
• Pulpotomy

h. Surgical Endodontics
• Apicoectomy
• Root Amputation
• Hemisection
• Apexification
• Apexogenesis

QUIZ

CHAPTER TEST

5. Periodontics
   a. Periodontal Team
   b. Periodontal Disease
      • Symptoms of Periodontal Disease
      • Causes of Periodontal Disease
      • Classification of Periodontal Disease
     hh. Gingivitis
    ii. Periodontitis
       jj. Necrotizing Ulcerative Gingivitis and Necrotizing Ulcerative Periodontitis
   c. Periodontal Diagnostic Procedures
      • Medical/Dental History
     kk. Sample Medical History Form
• Clinical Examination
ll. Extraoral Examination
mm. Intraoral Examination
nn. Periodontal Examination
  • Radiographic Interpretation
  • Presentation of Treatment Plan

QUIZ
d. Periodontal Instruments
  • Instrument Sharpening
  • Periodontal Probes
  • Explorers
  • Curettes
  • Scalers
  oo. Sickle Scalers
  pp. Jacquette Scalers
  qq. Chisel Scalers
  rr. Hoe Scalers
  • Files
  • Ultrasonic Instruments
  • Periodontal Knives
  • Interdental Knives
  • Periotomes
  • Surgical Scalpel
  • Electrosurgery
  • Pocket Marking Pliers
  • Periosteal Elevator
  • Periodontal Scissors, Rongeurs, and Forceps
e. Lasers
  • Uses of the Dental Laser
  • Benefits of Lasers in Dentistry

QUIZ
f. Nonsurgical Periodontal Procedures
  • Occlusal Adjustment
  • Scaling and Polishing
  • Root Planing
  • Gingival Curettage
  • Postoperative Treatment
g. Surgical Periodontal Procedures
  • Gingivectomy
  • Gingivoplasty
  • Periodontal Flap Surgery
• Osseous Surgery
  ss. Bone Grafting
  • Mucogingival Surgery
  • Gingival Grafting
  • Frenectomy
  • Guided Tissue Regeneration

QUIZ

h. Periodontal Maintenance Procedures
i. Dental Deposits
  • Soft Deposits
  • Calculus
  • Stains
  tt. Intrinsic Stains
  uu. Extrinsic Stains

TEST

CHAPTER TEST

6. Pediatric Dentistry
   a. The Pediatric Office
      • Pediatric Dental Team
      • Dental Assistant’s Role in Pediatric Dentistry
   b. Behavioral Characteristics of Children at Various Ages
   c. Patient Management
      • Behavior Management Techniques
        vv. Tell, Show, Do
        ww. Voice Control
        xx. Distraction
        yy. Nonverbal Communication
        zz. Modeling
        aaaa. Positive Reinforcement
        bbbb. Gentle Restraints
        cccc. Hand over Mouth
        ddd. Mild Sedation
        eeee. General Anesthesia
   d. Role of Parent or Guardian
   e. Procedures in Pediatric Dentistry
      • The Examination
      • Preventive Procedures
        ffff. Oral Hygiene Techniques
        gggg. Coronal Polishes
        hhhh. Pit and Fissure Sealants
iii. Fluoride Application and Fluoride Varnishes
jjj. Mouth Guards
   kkk. Preventive and Interceptive Orthodontic Treatment
      • Restorative Procedures
lll. Pedodontic Matrices
   • Dental Dam Procedure
   • Pulp Therapy in Primary and Young Permanent Teeth
mmm. Vital Pulp Therapy
nnn. Nonvital Pulp Therapy
   • Stainless Steel Crowns
f. Emergency Treatment for Traumatic Injuries
   • Fractured Teeth
   • Traumatic Intrusion
   • Displace Teeth
   • Avulsed Teeth
g. Child Abuse
   • The Law and Reporting Child Abuse

TEST

7. Orthodontics
   a. The Orthodontic Practice
      • Office
      • Team
     ooo. Orthodontist
     ppp. Reception and Business Office Staff
     qqq. Office Coordinator
     rrr. Laboratory Technician
     sss. Orthodontic Assistant
   b. Occlusion and Malocclusion
      • Normal Occlusion
      • Malocclusion
      • Malpositions of Individual Teeth and Groups of Teeth
c. Etiology of Malocclusion
d. Types if Orthodontic Treatments
   • Preventive and Interceptive Orthodontics
   • Corrective Orthodontics
e. Process of Tooth Movement
f. Preorthodontic Treatment
   • Diagnostic Records
• Medical-Dental History
• Clinical Examination
• Radiographs
• Photographs
• Study Models

g. Consultation Appointment

h. Orthodontic Appliances
• Fixed Appliances
ttt. Orthodontic Bands
uuu. Brackets
vvv. Arch Wires
www. Ligature Wire and Plastic Rings
xxx. Buccal Tubes
yyy. Springs
zzz. Elastics
• Special Fixed Appliances
aaaa. Lingual Braces
bbbb. Space Maintainer
cccc. Palatal Separating Appliance
• Removable Appliances
dddd. Headgear
eeee. Functional Appliances
ffff. Retainers
gggg. Tooth Positioner
hhhh. Esthetic Orthodontic Aligners

i. Orthodontic Instruments

j. Orthodontic Treatment
• Separators
• Selection of Orthodontic Bands
• Band Cementation
• Direct Bonding Brackets
• Placement of Arch Wire
• Oral Hygiene Instruction
• Periodic Office Visits for Adjustments

k. Completion Appointment

QUIZ

8. Oral and Maxillofacial Surgery
   a. The Oral and Maxillofacial Surgeon’s Office
   b. The Oral and Maxillofacial Surgery Team
      • Oral and Maxillofacial Surgeon
      • Receptionist and Business Staff
      • Surgical Dental Assistant
      • Nurse Anesthetist or Anesthesiologist
QUIZ

c. Oral Surgery Instruments
   • Scalpel
   • Retractors
   • Mouth Props
   • Hemostats
   • Needle Holders
   • Surgical Scissors
   • Surgical Aspirating Tips
   • Surgical Curettes
   • Surgical Chisels and Mallets
   • Surgical Bone Files
   • Rongeurs
   • Periosteal Elevator
   • Elevators
   • Forceps

QUIZ

d. Asepsis in Oral Surgery

QUIZ

e. Patient Considerations

QUIZ

f. Patient Preparation

QUIZ

g. Oral Surgery Procedures
   • Routine or Uncomplicated Extractions
   • Multiple Extractions and Alveoplasty
   • Impacted Teeth Extractions
   • Biopsy Procedures
      iii. The Incisional Biopsy
      jiii. The Excisional Biopsy
      kkkk. The Exfoliative Cytology
   • Dental Implant Surgery
   llll. Considerations for Dental Implants
      mmmm. Treatment Sequence
      nnnn. Types of Implants
      oooo. Postoperative Care and Home-Care Instructions

QUIZ

h. Postoperative Care of the Patient

QUIZ

i. Postsurgical Complications

QUIZ

j. Temporomandibular Joint Disease
   • Signs and Symptoms of TMJ Dysfunction
   • Diagnosing TMJ Dysfunction
   • Treatment Options for TMJ Dysfunction

QUIZ

k. Hospital Dentistry
QUIZ

CHAPTER TEST

9. Cosmetic Dentistry and Teeth Whitening
   a. Cosmetic Dentist and Staff
      • Dental Staff
   b. Scope of Cosmetic/Esthetic Dentistry
   c. Fundamentals of Cosmetic Dentistry
      • Light
      • Color
      • Illusion
      • Shape and Form
   d. Cosmetic Dentistry and Psychology
      • Psychological Influences
         pppp. Psychological Environment
      • Sociological Influences
   e. How a Patient Selects a Cosmetic Dentist
   f. Procedures in Cosmetic Dentistry
      • Diagnosis and Treatment Planning
      • Legal Forms and Documentation
   g. Oral Photography
      • Uses of Oral Photography
      • Basic Equipment for Dental Photography
      • Extraoral Techniques
      • Intraoral Techniques
   h. Contouring Soft Tissues in Cosmetic Dentistry
      • Indications for Treatment
      • Methods for Soft Tissue Contouring
      • Basic Clinical Technique for Soft Tissue Contouring
   i. Occlusion in Cosmetic Dentistry
   j. Types of Restorations and Materials
   k. Marketing Cosmetic Dentistry
      • Marketing Plan for Dental Office
   l. Advanced Chairside Functions
   m. Introduction to Tooth Whitening
   n. How Teeth Are Whitened
      • Hydrogen Peroxide
      • Carbamide Peroxide
      • Sodium Perborate
   o. Causes of Tooth Stains
   p. Role of the Dental Assistant
   q. Whitening Techniques
      • Nonvital Whitening
• Vital Whitening in the Dental Office
• Home-Whitening Techniques
  r. Over-the Counter Whitening Materials
      • Whitening Strips
      • Whitening Gel
      • Home Tray Whitening Systems
      • Whitening Toothpastes
      • Mouth Rinses and Chewing Gum
  s. Patient Information
Course Syllabus

SPRING SEMESTER

NAME OF COURSE: DA 204 Clinical Sciences II
(Dental Therapeutics)

CREDITS: 30 hours (Didactic) 4 hours (Clinical)

METHODOLOGY: Lecture, discussion, and demonstration

INSTRUCTOR: Michelle Racette, RDH

COURSE DESCRIPTION:
This course is planned to orient the learner to the legal and ethical administration of drugs to patients in the dental office.

LEARNING EXPERIENCES:
1. The student will be able to describe the differences in generic and brand name drugs.
2. List the ways drugs can be administered.
3. Describe how drug dosage is determined, the different effects of drug use, and the types of drugs prescribed and their effects.
4. Describe what nitrous oxide oxygen is and how it is used and the importance of reducing exposure to nitrous to the dental team.
5. Discuss intravenous sedation and general anesthesia and how it is used.
6. Describe the chemical make up and application of topical and local anesthetic.
7. Demonstrate the placement of topical anesthetic and the preparation, disposal, and care of the aspirating local anesthetic syringe.

TEXT:

OUTCOMES MEASUREMENT:
Tests 50%
Written Report 20%
Homework Assignments 10%
Final Examination 20%

ATTENDANCE:
Attendance at all classes is mandatory
COURSE CONTENT:

*Introduction to Therapeutics and Pain Control*
Phinney & Halstead, Chapter 15 pages 282, 285-287

LEARNING EXPERIENCES:

This is an introduction to pharmacology and drug laws including drug schedule for the Comprehensive Abuse prevention and Control Act of 1970 and dental assistants and the law.
3 hours (Didactic)

*Prescriptions*
Phinney & Halstead, Chapter 15 pages 282-285

LEARNING EXPERIENCES:

The student will be able to identify the parts of a prescription including heading, superscription, body, and closing. They will also learn the Latin abbreviations and English meanings of prescriptions.
3 hours (Didactic)

*Drug Names and Forms*
Phinney & Halstead, Chapter 15 pages 282

LEARNING EXPERIENCES:

The student will be able to identify the difference between drug brand names and generic names.
5 hours (Didactic)

*Administration of Drugs, Determining Dosage, and Effects*
Phinney & Halstead, Chapter 15 pages 287-288

LEARNING EXPERIENCES:

The student will identify the routes through which drugs can be administered, factors considered in drug dosage, and effects of drugs including side effects, allergic reactions, anaphylaxis, drug tolerance, and drug addiction.
3 hours (Didactic)

*Types of Drugs*
Phinney & Halstead, Chapter 15 pages 288-296

LEARNING EXPERIENCES:

The student will summarize the uses and effects of tobacco, caffeine, alcohol, marijuana, cocaine, heroin, morphine, codeine, amphetamines, hallucinogens, barbiturates, prescribed drugs, and herbal and other alternative medications.
4 hours (Didactic)
Nitrous Oxide-Oxygen
Phinney & Halstead, Chapter 20 pages 409-412
LEARNING EXPERIENCES:

The student will discuss the role of nitrous oxide in the care of the dental patient and exhibit the ability to assist in the administration of nitrous oxide. This section includes safety and precautions, indications for use of nitrous oxide sedation, contraindications for use of nitrous oxide, and equipment.
4 hours (Didactic)

General Anesthesia
Phinney & Halstead, Chapter 20 pages 394
LEARNING EXPERIENCES:

This unit prepares the student for patient management and monitoring, explains the four stages of anesthesia, patient preparation, postoperative instruction, recovery, and documentation.
4 hours (Didactic)

Topical and Local Anesthesia
Phinney & Halstead, Chapter 20 pages 394-408
LEARNING EXPERIENCES:

The student will review topical and local anesthesia including local anesthetic agents, vasoconstrictors, possible complications of local anesthetics, and types of injections; injection sites; anesthetics, syringes, and needles including the syringe, the needle, and the anesthetic cartridge; Supplemental anesthetic techniques including intraosseous anesthesia, periodontal ligament injection, intrapulpal injection, electronic anesthesia, and computer-controlled local anesthesia delivery systems.
4 hours (Didactic) 2 hours (Clinical)

CONTENT:

1. Drug Names
   a. Brand Names
   b. Generic Names
2. Prescriptions
   a. Parts of a Prescription
      • Heading
• Superscription
• Body of the Prescription
• Closing of the Prescription

3. Drug Laws
   b. Dental Assistants and the Law

4. Drug Administration Routes

QUIZ

5. Drugs
   a. Tobacco
   b. Caffeine
   c. Alcohol
   d. Marijuana
   e. Cocaine
   f. Narcotics
      • Heroin
      • Morphine
      • Codeine
   g. Amphetamines
   h. Hallucinogens
      • Lysergic Acid Diethylamide
      • Phencyclidine
      • Mescaline
   i. Barbiturates
   j. Prescribed Drugs
      • Analgesics
      • Tranquilizers
      • Antibiotics
      • Antifungal Agents
      • Anticholinergics

6. Herbal and Other Alternative Medications

QUIZ

CHAPTER TEST

7. Anesthetics and Sedation
   a. Conscious Sedation
   b. Intravenous Conscious Sedation (IV Sedation)
   c. Oral Sedation
   d. Inhalation Sedation
   e. Intramuscular Sedation
   f. General Anesthesia
   g. Topical Anesthesia
h. Local Anesthesia

8. Review of Topical and Local Anesthetics
9. Review of Injection Sites
10. Review of Anesthetics, Syringes, and Needles
11. Supplemental Anesthetic Techniques
   a. Intraosseous Anesthesia
   b. Periodontal Ligament Injection
   c. Intrapulpal Injection
   d. Electronic Anesthesia
   e. Computer-Controlled Local anesthesia Delivery System
12. Nitrous Oxide Sedation
   a. Safety and Precautions
      • Dental Personnel Safety
      • Patient Safety
   b. Indications for Use of Nitrous Oxide Sedation
   c. Contraindications for Use of Nitrous Oxide Sedation
   d. Equipment

TEST

FINAL EXAMINATION
SPRING SEMESTER

NAME OF COURSE: DA 204 Clinical Sciences II
(Applied Psychology in the Dental Office)

CREDITS: 20 Hours (Didactic)

METHODOLOGY: Lecture and Discussion
Required readings
Text assignments

INSTRUCTOR: Michelle Racette, RDH

COURSE DESCRIPTION:
This course is designed to provide the learner with basic psychology of human behavior.

TEXTS:

OUTCOMES MEASUREMENT:
Quizzes 40%
Discussion 10%
Final Examination 50%

ATTENDANCE:
Attendance at all classes is mandatory

COURSE CONTENT:

Understanding the Dental Patient
Ehrlich, Ann, Chapter 1, Text pp. 2 – 8

LEARNING EXPERIENCES:
The student will learn about basic psychological implications of the mouth and teeth including infancy and childhood, adulthood, ageing, extractions, and the denture patient.
3 Hours (didactic)

Understanding and Accepting Patient Behavior
Ehrlich, Ann, Chapter 2, Text pp. 12 – 19

LEARNING EXPERIENCES:
The student will learn to understand and accept patient behavior by learning motivational factors such as socioeconomic background, previous dental experience,
reaction to the present dental situation, psychological health and ways of coping with stress. They will be taught about cultural bias and differences including patients from the poverty and affluent class and the need for acceptance and respect.
3 Hours (didactic)

*Psychotic, Neurotic, and Normal Behavior*
Ehrlich, Ann, Chapter 3, Text pp. 22 – 33
LEARNING EXPERIENCES:
The student will study psychotic behavior including schizophrenia, paranoia, and psychopathic disorder; they will become knowledgeable about neurotic behaviors such as anxiety neurosis, depression, hysteria, hypochondria, and phobias; and they will learn how psychotic and neurotic behaviors compare to normal behavior.
3 Hours (didactic)

*Pain, Fear, Anxiety and Stress*
Ehrlich, Ann Chapter 4, Text pp. 35 – 50
LEARNING EXPERIENCES:
The student will learn about pain threshold, pain perception, and pain and anxiety. They will also be taught about fear and anxiety including mild and extreme dental fears, how they are expressed, and how to cope with stress.
3 Hours (didactic)

*Helping the Dental Patient*
Ehrlich, Ann, Chapter 5, Text pp. 52 – 88
LEARNING EXPERIENCES:
This unit explains how we can help the dental patient by trust building. It gives details on how the patient sees us and how professional competence, staff attitudes, and a sense of humor can be beneficial. The students are taught about responsive listening including responses that do not help, are neutral, or do help and chart the roadblocks to communication. They will learn to talk with patients including giving patient instructions and answering patient questions and learn about special patients and situations including defense mechanisms, the child’s first visit, local anesthesia, extractions, and the elderly patient.
4 Hours (didactic)

*Working Well Together – The Dental Health Team*
Ehrlich, Ann, Chapter 6, Text pp. 91 - 102
LEARNING EXPERIENCES:
This unit teaches the student to work well together with the dental health team including stress, reducing stress, team building, problem solving skills, and discussion of problem solving skills.
4 Hours (didactic)
CONTENT:

1. Understanding the Dental Patient
2. Why We Learn About Psychology
3. Basic Psychological Implications of the Mouth and Teeth
   a. Infancy and Childhood
   b. Adulthood
   c. Ageing
   d. Extractions
   e. The Denture Patient
4. Understanding and Accepting Patient Behavior
   a. Motivational Factors
   b. Optional Practice Cycle
   c. Cultural Bias and Differences Present In All of Us
   d. The Need for Accepting and Respect
5. Psychotic, Neurotic, and Normal Behavior
   a. Psychotic Behavior
   b. Neurotic Behavior
   c. Normal Behavior
6. Pain
   a. Pain is a Private Experience
   b. Pain Threshold
   c. Pain Perception
   d. Pain and Anxiety
7. Fear and Anxiety
   a. Fear
   b. Anxiety
   c. Fear and Anxiety Together
   d. Fear is a Learned Response
   e. Mild Dental Fears
   f. Extreme Dental Fears
   g. Fear and Anxiety Expressed
8. Stress
   a. Flight, Fight or Submit
   b. Stress Improperly Handled Becomes Distress
   c. Coping With Stress

TEST

9. Helping the Dental Patient
10. Trust Building
    a. Let’s Be Friends
    b. As the Patient Sees Us
    c. Professional Competence
    d. Staff Attitudes
    e. A Sense of Humor
11. Responsive Listening
   a. Responses That Do Not Help
   b. Responses That Are Neutral
   c. Responses That Help
   d. Roadblocks To Communication
12. Talking With Patients
   a. Words Can Hurt
   b. You-Messages
   c. Giving the Patient Instructions
   d. Answering Patient Questions
13. Special Patients and Situations
   a. Defense Mechanisms
   b. The Child’s First Visit
   c. Local Anesthesia
   d. Extractions
   e. The Elderly Patient

TEST

14. Working Well Together- The Dental Health Team
   a. Stress and the Dental Health Team
   b. What Can We Do To Reduce This Stress?
   c. Team Building
   d. Problem Solving Skills
   e. Discussion of Problem Solving Skills

TEST

FINAL EXAMINATION
Course Syllabus

SPRING SEMESTER

NAME OF COURSE      DA 206 Advanced functions
CREDITS:                       52 Hours (Didactic) 38 Hours (Laboratory)
METHODOLOGY:        Lecture and Demonstration
INSTRUCTOR:              Michelle Racette, RDH

COURSE DESCRIPTION:
This course is designed to help the dentist use time more effectively and efficiently by delegating the legal expanded functions to the dental assistant that are allowed in the state. The course will include lectures, laboratory, and clinical practice.

LEARNING EXPERIENCES:
1. The student will be able to describe the process of credentialing for expanded functions.
2. Given the knowledge and skills, the student will be able to perform the following expanded functions: place and remove dental dam, place and remove periodontal dressings, place and remove matrices, place and remove temporary restorations. Remove sutures, give fluoride treatments, take preliminary impressions, place sealants, perform coronal polishing, and place cavity liners, cavity varnish, and cement bases.

TEXT:
1. Dental Assisting, A Comprehensive Approach, Phinney & Halstead
3rd Edition, Thomson Delmar Learning

OUTCOME MEASUREMENT:
Tests 40%
Practical Examinations 40%
Clinical Performance 10%
Written Assignments 10%

ATTENDANCE:
Attendance in all classes is mandatory.
COURSE CONTENT

_Introduction and Credentialing of Expanded Functions_
Phinney & Halstead, Chapter 3, Text pages 28-29
LEARNING EXPERIENCES:
The student will review the Dental Practice Act, State Board of Dentistry, license to practice, expanded functions, certification, licensure, and registration.
2 hours (Didactic)

_Working as the Operator_
Phinney & Halstead, Chapter 9 pages 154-181, and Chapter 17 pages 335-341
LEARNING EXPERIENCES:
The student will review of dental anatomy and tooth morphology, positioning of the operator with the least amount of stress and strain, activity zones and classifications of motion, use of the mouth mirror for indirect vision, using a fulcrum, and establishing the working position of the operator, patient, and mirror.
5 hours (Didactic)

_Placing and Removing Dental Dam_
Phinney & Halstead, Chapter 34 pages 813-830
LEARNING EXPERIENCES:
The student will explain the purpose of the dental dam, list and explain advantages and contraindications of the dental dam, identify armamentarium needed for the dental dam procedure and explain the function of each, explain how to prepare the patient for dental dam placement and how to determine the area to isolate, describe and demonstrate how dental dam material is prepared, list and demonstrate steps of placing and removing the dental dam, and explain the dental dam procedure for a child patient.
6 hours (Didactic) 4 hours (Laboratory)

_Fluoride Treatments_
Phinney & Halstead, Chapter 4 pages 61-66
LEARNING EXPERIENCES:
The student will describe how to prepare a patient and demonstrate fluoride application.
4 hours (Didactic) 2 hours (Laboratory)

_Coronal Polishing_
Phinney & Halstead, Chapter 29 pages 672-687
LEARNING EXPERIENCES:
The student will define a coronal polish, explain the indications and contraindications for coronal polish, describe and identify dental deposits and stains, list types of abrasives and explain characteristics of each type, list and explain types of equipment and materials used to perform a coronal polish, explain how to maintain the oral cavity during coronal polish, list auxiliary polishing aids and explain their functions,
and describe steps in the coronal polish procedure. The student will perform a coronal polish.

6 hours (Didactic) 4 hours (Laboratory)

*Sealant Placement*
Phinney & Halstead, Chapter 28 pages 635-641
LEARNING EXPERIENCES:
The student will explain the purpose of using enamel sealants and where they are placed, list the indications and contraindications of placing sealants, discuss the role of the dental assistant in the placement of enamel sealants, describe the types of sealant materials, and list, describe, and demonstrate the steps of the application procedure.

6 hours (Didactic) 4 hours (Laboratory)

*Alginate Impressions*
Phinney & Halstead, Chapter 35 pages 842-850
LEARNING EXPERIENCES:
The student will demonstrate knowledge and skills needed to prepare, take, and remove alginate impressions and pour and trim a patient’s diagnostic cast.

4 hours (Didactic) 6 hours (Laboratory)

*Removing Sutures*
Phinney & Halstead, Chapter 25 pages 556-564
LEARNING EXPERIENCES:
The student will explain the function of sutures and when they are placed, list the equipment and supplies needed for suture removal, determine and identify the location and number of sutures and how to evaluate the healing process, and identify the following suture patterns: simple, continuous simple, sling, continuous sling, horizontal, and vertical mattress. They will list the basic criteria for suture removal, explain the steps of removal for identified suture patterns, and explain postoperative patient care.

6 hours (Didactic) 4 hours (Laboratory)

*Placement and Removing Matrices*
Phinney & Halstead, Chapter 34 pages 830-839
LEARNING EXPERIENCES:
The student will define matrix and wedge, list uses and types of matrices, describe and demonstrate the functions, parts, placement, and removal of the Tofflemire matrix, and explain and demonstrate placement and removal of the strip matrix.

4 hours (Didactic) 4 hours (Laboratory)

*Placing and Removing Periodontal Dressings*
Phinney & Halstead, Chapter 29 pages 668-671
LEARNING EXPERIENCES:
The student will identify the types of periodontal dressings and demonstrate how they are prepared, placed, and removed.
4 hours (Didactic) 4 hours (Laboratory)

Placement of Cavity Liners, Cavity Varnish, and Cement Bases
Phinney & Halstead, Chapter 33 pages 769-797

LEARNING EXPERIENCES:
The student will explain options for protecting the pulp with cavity liners, cavity varnish, and cement bases, describe the purpose of using cavity liners and list types of materials that can be used and explain the placement procedure, describe the purpose of the cavity varnish and explain the placement procedure, and they will describe the purpose for using cement bases and list types of materials that can be used and explain the placement procedure. The students will prepare zinc phosphate cement, zinc oxide eugenol cement- powder/liquid form and two-paste system, polycarboxylate cement, glass ionomer cement, calcium hydroxide cement- two-paste system, and cavity varnish.

5 hours (Didactic) 6 hours (Laboratory)

CONTENT:

1. Dental Practice Act
2. State Board of Dentistry
   a. License to Practice
   b. Expanded Functions
   c. Certification, Licensure, and Registration
3. Review of Tooth Morphology
4. Review of Concepts of Dental Assisting
   a. Activity Zones
   b. Classifications of Motion
   c. Ergonomics for the Operator
5. The Dental Dam
   a. Advantages to Dental Dam Use
   b. Contraindications to Dental Dam Isolation
   c. Materials and Equipment
      • Dental Dam Material
      • Dental Dam Napkin
      • Dental Dam Frame
      • Dental Dam Punching Guides
      • Dental Dam Punch
      • Dental Dam Clamps
      • Dental Dam Forceps
      • Dental Floss
• Lubricant
• Scissors
• Inverting or Tucking Instrument
• Ligatures
• Stabilizing Cord

d. Preparation Before Dental Dam Placement
  • Educating the Patient
  • Determining Area to Isolate
  • Dividing the Dental Dam
  • Punching the Dental Dam
  • Common Errors When Punching Dental Dam

e. Placement and Removal Procedures for Dental Dam

f. Dental Dam for Pediatric Patients
  • Placing Dental Dam for Pediatric Patients

g. Alternatives to Full Dental Dam Placement

PRACTICAL EXAM

TEST

6. Fluoride Treatment
  a. Equipment and Supplies
    • Basic Setup
    • Saliva Ejector, HVE, Air-Water Syringe Tip
    • Cotton Rolls, Gauze Sponges
    • Fluoride Solution
    • Appropriately Sized Trays
    • Timer
  b. Procedure Steps

PRACTICAL EXAMINATION

7. Coronal Polish
  a. Rationale for Performing Coronal Polish
  b. Contraindications and Modifications
  c. Dental Deposits
    • Soft Deposits
    • Calculus
    • Stains
  d. Abrasives and Polishing Agents
    • Abrasives
    • Types of Abrasives
  e. Equipment and Supplies
    • Use of Dental Handpiece for Coronal Polish
    • Use of Rubber Prophy Cup
    • Systemic Procedure
• Prophy Brush
• Dental Tape and Dental Floss

f. Maintaining the Operating Field
• Dental Assistant Guidelines
• Patient Considerations
• Dental Light Use
• Oral Cavity Maintenance

g. Auxiliary Polishing Aids
• Bridge Threaders
• Abrasive Polishing Strips
• Soft Wood Points
• Interproximal Brushes

PRACTICAL EXAMINATION
TEST

8. Enamel Sealants
   a. Indications and Contraindications for Sealants
   b. Role of the Dental Assistant
   c. Enamel Sealant Materials
      • Bonding, Etching, and Conditioning
      • Curing Process
   d. Placement of Enamel Sealants

PRACTICAL EXAMINATION

9. Alginate Impressions
   a. Preparing for Alginate Impressions
      • Patient Preparation
      • Material Preparation
   b. Taking an Alginate Impression
      • Procedure Steps
   c. Removing the Alginate Impression
      • Procedure Steps
   d. Disinfecting Alginate Impression
      • Equipment and Supplies
      • Procedure Steps

PRACTICAL EXAMINATION

10. Suture Removal
    a. Procedures Prior to Removal of Sutures
    b. Types of Suture Patterns
    c. Suture Removal Criteria
    d. Suture Removal
e. Post-Suture Removal

PRACTICAL EXAMINATION
TEST

11. Matrix and Wedge
   a. Matrices
   b. Wedges
      • Wedge Types
      • Wedge Placement
   c. Tofflemire Matrix
      • Parts of Tofflemire Matrix
      • Matrix bands
      • Automatrix
   d. Plastic Strip Matrix
   e. Sectional Matrix Systems

PRACTICAL EXAMINATION
TEST

12. Periodontal Dressings
   a. Preparation and Placement of Noneugenol Periodontal Dressing
      • Equipment
      • Procedure Steps
   b. Removal of Periodontal Dressing
      • Equipment
      • Procedure Steps

PRACTICAL EXAMINATION
TEST

13. Dental Cements
   a. Mixing Zinc Phosphate Cement
      • Equipment and Supplies
      • Procedure Steps
   b. Mixing Zinc Oxide Eugenol Cement-Powder/Liquid Form
      • Equipment and Supplies
      • Procedure Steps
   c. Mixing Zinc Oxide Eugenol Cement- Two-Paste System
      • Equipment and Supplies
      • Procedure Steps
   d. Mixing Polycarboxylate Cement
      • Equipment and Supplies
      • Procedure Steps
   e. Mixing Glass Ionomer Cement
      • Equipment and Supplies
• Procedure Steps

f. Mixing Calcium Hydroxide Cement- Two-Paste System
   • Equipment and Supplies
   • Procedure Steps

g. Cavity Varnish
   • Equipment and Supplies
   • Procedure Steps

PRACTICAL EXAMINATION

Dental Assisting is an instructional program that prepares individuals to assist a dentist at chairside. This preparation includes office procedures, performance of radiographic techniques and selected laboratory tasks. McCann graduates are eligible to sit for the Certified Dental Assistant examination as administered by the Dental Assisting National Board (DANB).

A dental assistant may work in a general dentist office as an administrator or a dental assistant or both. There are several other options for the dental assistant including working for a dental specialist, working in a hospital setting, in a dental laboratory, and dental insurance companies.

In order to become a certified dental assistant you must complete a credited program and pass your certification examination given by the Dental Assisting National Board (DANB). McCann is affiliated with Berkshire Community College, in which if you complete one year at McCann you can then complete a year at the college to receive an Associates degree in Health Science. Many opt to continue their education to become a dental hygienist or a dentist.

There are several employment opportunities in Berkshire County. Dental staff is in high demand. Many employers are now offering financial aid to their existing staff to further their education; therefore, more help is needed during their absence. One of the newer trends is that the dentists are hiring dental assistants for the dental hygienist for charting, assisting, and room clean up.

The starting salary for a dental assistant in the Berkshire County area usually starts at about $14.00 per hour. If you work full time, benefits will be available, as well as vacation and sick time. This is the universal starting pay throughout the state; yet the bigger cities will offer more.
Strand 1: Safety and Health Knowledge and Skills

1.A Define health and safety regulations.
   1.A.01a Identify and apply OSHA and other health and safety regulations that apply to specific tasks and jobs in the occupational area.
   1.A.02a Identify and apply EPA and other environmental protection regulations that apply to specific tasks and jobs in the occupational area.
   1.A.03a Identify and apply Right-To-Know (Hazard Communication Policy) and other communicative regulations that apply to specific tasks and jobs in the occupational area.
   1.A.04a Explain procedures for documenting and reporting hazards to appropriate authorities.
   1.A.05a List penalties for non-compliance with appropriate health and safety regulations.
   1.A.06a Identify contact information for appropriate health and safety agencies and resources.

1.B Demonstrate health and safety practices.
   1.B.01a Identify, describe and demonstrate the effective use of Material Safety Data Sheets (MSDS).
   1.B.02a Read chemical, product, and equipment labels to determine appropriate health and safety considerations.
   1.B.03a Identify, describe and demonstrate personal, shop and job site safety practices and procedures.
   1.B.04a Demonstrate safe dress and use of relevant safety gear and personal protective equipment (PPE), including wrist rests, adjustable workspaces and equipment, gloves, boots, earplugs, eye protection, and breathing apparatus.
   1.B.05a Illustrate appropriate safe body mechanics, including proper lifting techniques and ergonomics.
   1.B.06a Locate emergency equipment in your lab, shop, and classroom, including (where appropriate) eyewash stations, shower facilities,
sinks, fire extinguishers, fire blankets, telephone, master power switches, and emergency exits.

1.B.07a Demonstrate the safe use, storage, and maintenance of every piece of equipment in the lab, shop, and classroom.

1.B.08a Describe safety practices and procedures to be followed when working with and around electricity.

1.B.09a Properly handle, store, dispose of, and recycle hazardous, flammable, and combustible materials.

1.B.10a Demonstrate proper workspace cleaning procedures.

1.B.11c Demonstrate medical asepsis hand wash technique.

1.B.12c Utilize correct procedure for client identification.

1.B.13c Identify methods of transmission of microorganisms.

1.B.14c Demonstrate safe transfer techniques.

1.B.15c Observe and report signs of infection and utilize isolation techniques as needed.

1.B.16c Demonstrate safe practices while administering patient care activities.

1.B.17c Demonstrate safe barrier protection.

1.B.18c Define of emergency codes used in office / medical facility.

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1.B.19c Demonstrate needle safety and sharps disposal.

1.B.20c Explain proper handling and disposal of biohazardous materials.

1.B.21c Recognize signage in the healthcare environment.

1.B.22c Remove and dispose of contaminated gloves properly.

1.B.23 Explain the actions, uses, advantages and disadvantages of antimicrobial agents and sterilization procedures.

1.B.24 Demonstrate all forms of sterilization and/or disinfection procedures.

1.B.25 Demonstrate the proper cleaning and packing of instruments for all sterilization.

1.B.26 Demonstrate proper procedures in the operatory/treatment rooms using recommended CDC techniques and guidelines.

1.B.27 Demonstrate proper maintenance preparation using recommended CDC techniques / guidelines.

1.B.28 Maintain records according to the OSHA blood-borne pathogens and hazard communication standards.

1.B.29 Student will successfully complete the Dental Assistant National Board (DANB) Infection Control Examination (ICE) and Career Safe Examination.

Performance Example:

1. Student will demonstrate proper infection control procedures before and after treatment, and proper disposal of hazardous waste.

1.C Demonstrate responses to situations that threaten health and safety.

1.C.01a Illustrate First Aid procedures for potential injuries and other health concerns in the occupational area.

1.C.02a Describe the importance of emergency preparedness and an emergency action plan.

1.C.03a Illustrate procedures used to handle emergency situations and accidents, including identification, reporting, response, evacuation plans, and follow-up procedures.
1.C.04a Identify practices used to avoid accidents.
1.C.05a Identify and describe fire protection, precautions and response procedures.
1.C.06a Discuss the role of the individual and the company/organization in ensuring workplace safety.
1.C.07a Discuss ways to identify and prevent workplace/school violence.

1.D Demonstrate procedures relating to radiation safety.
   1.D.01 Explain radiation measures to produce diagnostic radiographic surveys on manikins prior to exposing radiographs on patients in accordance with OSHA and state Dental Practice Act.
   1.D.02 Shield the patient for radiographic procedures.
   1.D.03 Expose and evaluate radiographs.
   1.D.04 Select appropriate radiographic technique.
   1.D.05 Describe the use and purpose of various intraoral and extra oral radiographs.
   1.D.06 Select appropriate radiographic film to examine, view, or survey conditions, teeth, or landmarks.
   1.D.07 Select appropriate equipment for radiographic techniques.
   1.D.08 Define intraoral radiography.

Massachusetts VTE Frameworks Dental Assisting August 2007 Page 3
   1.D.09 Define extra oral radiography.
   1.D.10 Evaluate radiographs for diagnostic value.
   1.D.12 Evaluate films, both right and left, for proper marking and patient identification.
   1.D.13 Mount and label radiographs.
   1.D.14 Apply the principles of radiation protection and health physics and hazards in the operation of radiographic equipment.
   1.D.15 Explain principles of radiation physics, including primary radiation, scattered or secondary radiation, latent period, and ALARA principle.
   1.D.16 Practice safety measures to provide protection from x-radiation.
   1.D.17 Manage storage of radiographic supplies and materials.
   1.D.19 Demonstrate the ALARA technique while exposing radiographs.
   1.D.21 Complete the State or DANB Radiation Health and Safety Examination.

Performance Example:
1. Successfully expose, process, and mount a Full Mouth X-ray (FMX).

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Strand 2: Technical Knowledge and Skills

2.A Summarize the fundamentals of the healthcare industry.
   2.A.01c Identify the types of health care facilities.
   2.A.02c Identify the organizational structure of the health care team.
   2.A.03c Demonstrate professional behavior in clinical practice.
   2.A.04c Demonstrate telephone techniques appropriate to a health care setting.
   2.A.05c Summarize the residents'/patients' Bill of Rights and HIPAA.
   2.A.06c Describe the role of the mandated reporter.
2.A.07c Demonstrate introductory resident/client identification.
2.A.08c Demonstrate verbal communication.
2.A.09c Demonstrate non-verbal communication.
2.A.10c Identify barriers to open communication.
2.A.11c Demonstrate observation skills.
2.A.12c Give a verbal client report.
2.A.13c Complete a written client report.
2.A.14c Demonstrate organization, maintain or write technical information in a patient file or chart and demonstrate how to process the correction of an error.
2.A.15c Complete incident / variance report.
2.A.16c Employ the use of medical terms and abbreviations.
2.A.17c Identify professional healthcare workers’ organizations and credentialing requirements.

**Performance Example:**
1. Student will successfully complete a written essay demonstrating their knowledge of Health Care, including but not limited to the identification of the roles and responsibility of the Healthcare Worker.

2.B Demonstrate procedures used when responding to client needs.
   2.B.01c Explain importance of responding to client needs in a timely, compassionate and professional manner.
   2.B.02c Demonstrate basic assessment techniques.
   2.B.03c Demonstrate respect for diverse orientations.
   2.B.04c List strategies used to maintain client dignity at all times.
   2.B.05c Demonstrate procedures used to measure and record vital signs.
   2.B.06c Demonstrate procedures used to measure and record height and weight.
   2.B.07c Obtain CPR (Cardiopulmonary resuscitation) certification.
   2.B.08c Obtain First Aid certification
   2.B.09c Explain procedures used to position and drape clients.
   2.B.10c Identify procedures used with pediatric patients and patients with special needs.

**Performance Example:**
1. Student will demonstrate an ability to respond in a timely fashion to individual client needs.

2.C Participate in an approved externship.
   2.C.01c Successfully complete a supervised student practicum.

2.D Perform the fundamentals of healthcare office management.
   2.D.01c Demonstrate basic keyboarding skills.
   2.D.02c Manage patient files.
   2.D.03c Demonstrate the effective use of numerical, subject, and color-coded filing systems.
   2.D.04c Maintain patient contact information records.

**Performance Example:**
1. Keyboard the alphabet using the touch method.
2. Demonstrate proficiency in the following areas: keyboarding, basic computer skills, filing, communication, data entry and registration.
2.E Perform basic chair-side dental procedures.
   2.E.01 Describe strategies used to establish a rapport with the client.
   2.E.02 Obtain a medical and dental history.
   2.E.03 Demonstrate the proper client/assistant/operatory positions in a given treatment.
   2.E.04 Prepare the operatory for the client treatment.
   2.E.05 Prepare and set-up any anesthetic according to doctor’s orders.
   2.E.06 Apply a topical anesthetic to the injection site.
   2.E.07 Place and remove a rubber dam.
   2.E.08 Maintain a clear operating field (e.g., oral evacuation, moisture control, tissue retraction, and three-way syringe).
   2.E.09 Perform an instrument transfer.
   2.E.10 Explain procedures used when dismissing the client after treatment.
   2.E.11 List duties required when assisting with postoperative care and instruction for all dental procedures.
   2.E.12 Recognize medical/dental emergencies and the proper protocols.
   2.E.13 Obtain impressions for study casts, athletic guards, and custom trays and ortho retainers.
   2.E.14 Assist in clinical oral examination and dental charting.
   2.E.15 Recognize and report signs of abuse.
   2.E.16 Complete a dental externship.

   **Performance Example:**
   1. Student will successfully perform given dental procedures with dentist and client and will be evaluated by dentist and/or instructor.

2.F Apply dental materials.
   2.F.01 Explain the properties of dental materials.
   2.F.02 Demonstrate the preparation and application of impression materials.
   2.F.03 Demonstrate the preparation and application of restorative materials.
   2.F.04 Demonstrate the preparation and application of dental cements.
   2.F.05 Demonstrate the preparation and application of gypsum products.
   2.F.06 Demonstrate the preparation and application of dental resins.
   2.F.07 Demonstrate the preparation and application of abrasives and polishing agents.
   2.F.08 Demonstrate the preparation and application of dental metals.
   2.F.09 Demonstrate the preparation and application of sedative / post-operative procedures.
   2.F.10 Demonstrate the preparation and application of dental waxes.
   2.F.11 Demonstrate the preparation and application of whitening materials.

   Massachusetts VTE Frameworks Dental Assisting August 2007 Page 6

   **Performance Example:**
   1. Student will successfully perform an application of a given dental material.

2.G Assist with restorative procedures.
   2.G.01 Prepare for armamentariums and manipulation of dental materials for restorative procedures.
   2.G.02 Assist with amalgam procedures.
2.G.03 Assist with composite procedures.
2.G.04 Fabricate temporary / provisional crowns.
2.G.05 Demonstrate and prepare given matrices.
2.G.06 Assist with temporary fillings.
2.G.07 Explain laser safety technology.

**Performance Example:**
1. Student will successfully perform given restorative procedures with dentist and client and will be evaluated by dentist and/or instructor.

2.H Assist with prosthodontic procedures.
2.H.01 Prepare armamentarium and manipulation of dental materials for prosthodontic procedures.
2.H.02 Assist with fixed prosthodontics procedures.
2.H.03 Assist with removable prosthodontics procedures.
2.H.04 Assist with the adjustment of fixed and removable prosthetics.
2.H.05 Demonstrate fabrication of provisional prosthetics.
2.H.06 Fabricate and obtain all forms of bite registrations.

**Performance Example:**
1. Student will successfully perform given prosthodontic procedures with dentist and client and will be evaluated by dentist and/or instructor.

2.I Assist with preventive measures.
2.I.01 Prepare armamentarium and manipulation of dental materials for preventive procedures.
2.I.02 Assist with preventive procedures.
2.I.03 Demonstrate the proper instrumentation and usage of rubber cup polishing.
2.I.04 Apply anticarcinogenic agents.
2.I.05 Prepare and assist for application with dental sealants.
2.I.06 Provide oral hygiene / health instruction.
2.I.07 Summarize dietary analysis for dental disease control.
2.I.08 Explain the use and purpose of intra oral photographs.

**Performance Example:**
1. Student will successfully perform given preventive procedures with dentist and client and will be evaluated by dentist and/or instructor.

2.J Assist with oral surgery and/or periodontal surgery.
2.J.01 Prepare armamentarium and manipulation of any dental materials for oral surgical procedures.
2.J.02 Illustrate common surgical procedures.
2.J.03 Assist with extractions.
2.J.04 Assist with implant procedures.

**Performance Example:**
1. Student will successfully perform given surgery procedures with dentist and client and will be evaluated by dentist and/or instructor.

2.K Assist with orthodontic procedures.
2.K.01 Prepare armamentarium and manipulation of any dental materials for orthodontic procedures.
2.K.02 Assist with orthodontic procedures as stated in the state Dental Practice Act.

**Performance Example:**
1. Student will successfully perform given orthodontic procedures with dentist and client and will be evaluated by dentist and/or instructor.

2.L Assist with endodontics procedures.
2.L.01 Prepare armamentarium and manipulation of any dental materials for endodontic procedures.
2.L.02 Assist with endodontic procedures as stated in the state Dental Practice Act.

**Performance Example:**
1. Student will successfully perform given endodontic procedures with dentist and client and will be evaluated by dentist and/or instructor.

2.M Explain equipment and practices relating to radiography.
2.M.01 Define commonly used terms relating to radiography.
2.M.02 State the characteristics of x-ray beams and ionizing radiation.
2.M.03 Identify the parts of an x-ray machine.
2.M.04 Demonstrate proper film placement and patient protection.
2.M.05 Explain darkroom procedures, including film mounting.
2.M.06 Summarize supplemental radiographic techniques and surveys.

**Mandatory Certifications for Students in a Dental Assisting Program**
CPR – American Heart Association, American Red Cross
Radiology Certification – Dental Assisting National Board
Infection Control Certification – Dental Assisting National Board

**Massachusetts VTE Frameworks Dental Assisting August 2007 Page 8**

**Strand 3: Embedded Academic Knowledge and Skills**
3.A English Language Arts

<table>
<thead>
<tr>
<th>3.A.01c</th>
<th>19.21</th>
<th>For informational/expository writing: Write reports based on research that includes quotations, footnotes or endnotes, and a bibliography.</th>
<th>Pre-9th</th>
<th>Composition</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.A.02c</td>
<td>24.4</td>
<td>Apply steps for obtaining information from a variety of sources, organizing information, documenting sources, and presenting research in individual</td>
<td>Pre-9th</td>
<td>Composition</td>
</tr>
<tr>
<td>Standard Code</td>
<td>Unit</td>
<td>Description</td>
<td>Grade</td>
<td>Domain</td>
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<tr>
<td>3.A.03c</td>
<td>2.4</td>
<td>Integrate relevant information gathered from group discussions and interviews for reports.</td>
<td>Pre-9th</td>
<td>Language</td>
</tr>
<tr>
<td>3.A.04c</td>
<td>13.19</td>
<td>Identify and use knowledge of common graphic features (charts, maps, diagrams).</td>
<td>Pre-9th</td>
<td>Reading</td>
</tr>
<tr>
<td>3.A.05c</td>
<td>24.5</td>
<td>Formulate open-ended research questions and apply steps for obtaining and evaluating information from a variety of sources, organizing information, documenting sources in a consistent and standard format, and presenting research.</td>
<td>9/10</td>
<td>Composition</td>
</tr>
<tr>
<td>3.A.06c</td>
<td>20.5</td>
<td>Use different levels of formality, style, and tone when composing for different audiences.</td>
<td>9/10</td>
<td>Composition</td>
</tr>
<tr>
<td>3.A.07c</td>
<td>2.5</td>
<td>Summarize in a coherent and organized way information and ideas learned from a focused discussion.</td>
<td>9/10</td>
<td>Language</td>
</tr>
<tr>
<td>3.A.08c</td>
<td>26.5</td>
<td>Analyze visual or aural techniques used in a media message for a particular audience and evaluate their effectiveness.</td>
<td>9/10</td>
<td>Media</td>
</tr>
<tr>
<td>3.A.09c</td>
<td>19.27</td>
<td>For informational/expository writing: Write well-organized research papers that prove a thesis statement using logical organization, effective supporting evidence, and variety in</td>
<td>11/12</td>
<td>Composition</td>
</tr>
<tr>
<td>Standard Code</td>
<td>Code</td>
<td>Description</td>
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<tr>
<td>3.A.10c</td>
<td>22.1</td>
<td>Use all conventions of standard English when writing and editing.</td>
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<tr>
<td>3.A.11c</td>
<td>24.6</td>
<td>Formulate original, open-ended questions to explore a topic of interest, design and carry out research, and evaluate the quality of the research paper in terms of the adequacy of its questions, materials, approach, and documentation of sources.</td>
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</tr>
<tr>
<td>3.A.12c</td>
<td>3.17</td>
<td>Deliver formal presentations for particular audiences using clear enunciation and appropriate organization, gestures, tone, and vocabulary.</td>
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<tr>
<td>3.A.13c</td>
<td>4.27</td>
<td>Use general dictionaries, specialized dictionaries, thesauruses, histories of language, books of quotations, and other related references as needed.</td>
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<tr>
<td>3.A.14c</td>
<td></td>
<td>Follow correct procedures for technical documentation and journaling.</td>
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<tr>
<td>3.A.15c</td>
<td></td>
<td>Read medical/technical manuals, guides, resource books and technical literature to gain information and solve problems.</td>
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<tr>
<td>3.A.16c</td>
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<td>Read, comprehend, and follow written medical/technical directions for procedures and processes.</td>
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<tr>
<td>3.A.17c</td>
<td>Use medical terminology within a scope of practice in order to interpret, transcribe, and communicate information, data and observations.</td>
<td>Voc</td>
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</tr>
</tbody>
</table>

### 3.B Mathematics

<p>| | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>3.B.01c</td>
<td>7.P.6</td>
<td>Use linear equations to model and analyze problems involving proportional relationships. Use technology as appropriate.</td>
<td>Pre-9th</td>
</tr>
<tr>
<td>3.B.02c</td>
<td>8.N.1</td>
<td>Compare, order, estimate, and translate among integers, fractions and mixed numbers (i.e., rational numbers), decimals, and percents.</td>
<td>Pre-9th</td>
</tr>
<tr>
<td>3.B.03c</td>
<td>8.M.2</td>
<td>Given the formulas, convert from one system of measurement to another. Use technology as appropriate.</td>
<td>Pre-9th</td>
</tr>
<tr>
<td>3.B.04c</td>
<td>10.D.1</td>
<td>Select, create, and interpret an appropriate graphical representation (e.g., scatterplot, table, stem-and-leaf plots, box-and-whisker plots, circle graph, line graph, and line plot) for a set of data and use appropriate statistics (e.g., mean, median, range, and mode) to communicate information about the</td>
<td>9/10</td>
</tr>
</tbody>
</table>
3. B. 05c  10. P. 8  Solve everyday problems that can be modeled using systems of linear equations or inequalities. Apply algebraic and graphical methods to the solution. Use technology when appropriate. Include mixture, rate, and work problems.

3. B. 06c  12. D. 1  Design surveys and apply random sampling techniques to avoid bias in the data collection.

3. B. 07c  12. D. 2  Select an appropriate graphical representation for a set of data and use appropriate statistics (e.g., quartile or percentile distribution) to communicate information about the data.

3. B. 08c  12. D. 7  Compare the results of simulations (e.g., random number tables, random functions, and area models) with predicted probabilities.

3. C Science and Engineering/Technology

<p>| 3. C. 01c | 1.2 | Recognize the six most common elements in organic molecules (C, H, N, O, P, S). | Biology |</p>
<table>
<thead>
<tr>
<th>3.C.02c</th>
<th>1.5</th>
<th>Explain the role of enzymes in biochemical reactions.</th>
<th>Biology</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.C.03c</td>
<td>2.1</td>
<td>Relate cell parts/organelles to their functions.</td>
<td>Biology</td>
</tr>
<tr>
<td>3.C.04c</td>
<td>2.2</td>
<td>Differentiate between prokaryotic cells and eukaryotic cells, in terms of their general structures and degrees of complexity.</td>
<td>Biology</td>
</tr>
<tr>
<td>3.C.05c</td>
<td>2.4</td>
<td>Describe how cells function in a narrow range of physical conditions, such as temperature and pH, to perform life functions that help to maintain homeostasis</td>
<td>Biology</td>
</tr>
<tr>
<td>3.C.06c</td>
<td>3.1</td>
<td>Describe the structure and function of DNA, and distinguish among replication, transcription, and translation.</td>
<td>Biology</td>
</tr>
<tr>
<td>3.C.07c</td>
<td>3.2</td>
<td>Describe the processes of replication, transcription, and translation and how they relate to each other in molecular biology.</td>
<td>Biology</td>
</tr>
<tr>
<td>3.C.08c</td>
<td>4.1</td>
<td>Explain how major organ systems in humans (e.g., kidney, muscle, lung) have functional units (e.g., nephron, sarcome, alveoli) with specific anatomy that perform the function of that organ system.</td>
<td>Biology</td>
</tr>
<tr>
<td>3.C.09c</td>
<td>1.1</td>
<td>Identify and explain some of the physical properties that are used to classify matter, e.g., density, melting point, and boiling point.</td>
<td>Chemistry</td>
</tr>
<tr>
<td>3.C.10c</td>
<td>1.2</td>
<td>Explain the difference between mixtures and pure substances.</td>
<td>Chemistry</td>
</tr>
<tr>
<td>3.C.11c</td>
<td>1.3</td>
<td>Describe the four states of matter (solid, liquid, gas, plasma) in terms of energy, particle motion, and phase transitions.</td>
<td>Chemistry</td>
</tr>
<tr>
<td>3.C.12c</td>
<td>1.4</td>
<td>Distinguish between chemical and physical changes.</td>
<td>Chemistry</td>
</tr>
<tr>
<td>3.C.13c</td>
<td>4.7</td>
<td>Name and write the chemical formulas for simple ionic and molecular compounds, including those that contain common polyatomic ions.</td>
<td>Chemistry</td>
</tr>
<tr>
<td>3.C.14c</td>
<td>Explain body planes, directional terms, quadrants and cavities.</td>
<td>Voc</td>
<td></td>
</tr>
<tr>
<td>3.C.15c</td>
<td>Analyze the interdependence of the body systems as they relate to wellness, disease, disorders, therapies and care rehabilitation.</td>
<td>Voc</td>
<td></td>
</tr>
<tr>
<td>3.C.16c</td>
<td>Compare specified diseases and disorders by classifications, causes, diagnoses, therapies, and care.</td>
<td>Voc</td>
<td></td>
</tr>
<tr>
<td>3.C.17c</td>
<td>Analyze methods to control the spread of pathogenic microorganisms.</td>
<td>Voc</td>
<td></td>
</tr>
<tr>
<td>3.C.18c</td>
<td>Identify and contract various types of immunities.</td>
<td>Voc</td>
<td></td>
</tr>
<tr>
<td>3.C.19c</td>
<td>Compare the aging process among the body systems.</td>
<td>Voc</td>
<td></td>
</tr>
</tbody>
</table>
Strand 4: Employability Knowledge and Skills

4.A Develop employability skills to secure and keep employment in chosen field.
   4.A.01a Evaluate industries, organizations, and careers based on multiple sources of research and information.
   4.A.02a Assess interest areas to determine potential career pathways, including career ladders.
   4.A.03a Develop a career plan with alternatives.
   4.A.04a Complete job applications and related employment documents (e.g. W-4).
   4.A.05a Create professional cover letters, resumes, and portfolios in a variety of formats (print and electronic).
   4.A.06a Apply job search skills to seek, evaluate, apply for, and accept employment.
   4.A.07a Demonstrate good interviewing skills.
   4.A.08a Demonstrate employability skills needed to get and keep a job.
   4.A.09a Assess alternative occupational choices (e.g. working conditions, benefits, and opportunities to change).

Performance Examples:
1. Research positions open within a variety of companies and compare/contrast their descriptions, duties, and expectations.
2. Prepare responses to standard interview questions.
3. Participate in a mock-interview with industry professionals.

4.B Communicate in multiple modes to address needs within the career and technical field.
   4.B.01a Apply strategies to enhance effectiveness of all types of communications in the workplace.
   4.B.02a Apply reading skills and strategies to work-related documents.
   4.B.03a Locate information from books, journals, magazines, and the Internet.
   4.B.04a Apply basic writing skills to work-related communication.
   4.B.05a Write work-related materials.
   4.B.06a Explain information presented graphically.
   4.B.07a Use writing/publishing/presentation applications.
   4.B.08a Apply basic skills for work-related oral communication.
   4.B.09a Explain proper telephone etiquette and skills.
   4.B.10a Lead formal and informal group discussions.
   4.B.11a Demonstrate effective negotiation and conflict management.
   4.B.12a Apply active listening skills to obtain and clarify information.
   4.B.13a Communicate with others in a diverse workforce.

Performance Examples:
1. Review a professional journal; choose one article to summarize.
2. Call the publisher for free products in journal.
3. Develop an oral presentation regarding an article in a journal.
4. Summarize trends presented in a graph.

   4.C.01a Demonstrate skills used to define and analyze a given problem.
4.C.02a Explain the importance and dynamics of individual and teamwork approaches of problem solving.
4.C.03a Describe methods of researching and validating reliable information relevant to the problem.
4.C.04a Explain strategies used to formulate ideas, proposals and solutions to problems.
4.C.05a Select potential solutions based on reasoned criteria.
4.C.06a Implement and evaluate solution(s).

4.D Demonstrate positive work behaviors.
4.D.01a Identify time management and task prioritization skills.
4.D.02a Explain the importance of following workplace etiquette/protocol.
4.D.03a Demonstrate willingness to learn and further develop skills.
4.D.04a Demonstrate self-management skills.
4.D.05a List causes of stress and effective stress management techniques.
4.D.06a Describe the importance of having a positive attitude and techniques that boost morale.
4.D.07a Show initiative by coming up with unique solutions and taking on extra responsibilities.
4.D.08a Explain the importance of setting goals and demonstrate the ability to set, reach, and evaluate goals.
4.D.09a Explain the importance of taking pride in work accomplished and extrinsic and intrinsic motivators that can be used to increase pride.
4.D.10a Value the importance of professionalism, including reliability, honesty, responsibility, and ethics.
4.D.11a Demonstrate a respect for diversity and its benefit to the workplace.

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Strand 5: Management and Entrepreneurship Knowledge and Skills

5.A Analyze basic business practices required to start and run a company/organization.
5.A.01a Define entrepreneurship.
5.A.02a Describe the relationship between suppliers, producers, and consumers.
5.A.03a Compare and contrast types of businesses, including sole proprietorships, small businesses, companies, corporations, governmental agencies, and non-profit organizations.
5.A.04a Describe practices that ensure quality customer service.
5.A.05a Explain the value of competition in business/field.
5.A.06 Explain concepts of insurance management.
5.A.07 Explain inventory management.

Performance Examples:
1. Prepare a business plan for a new company in your community.
2. Participate in a discussion with members of a local small-business incubator or chamber of commerce, identifying opportunities and summarizing best practices of new companies.
3. Create an equipment list, with costs, of equipment required for doing specific tasks.
4. Identify local zoning and environmental laws that apply to businesses in your industry.

5.B Manage all resources related to a business/organization.
   5.B.01a Identify a company's/organization's chain of command and organizational structure.
   5.B.02a Define and demonstrate leadership and teamwork skills.
   5.B.03a Explain ways a company or organization can market itself, including choosing a name, designing logos and promotional materials, advertising, and the importance of word-of-mouth.
   5.B.04a Identify methods to track inventory, productivity, income, expenses, and personnel.
   5.B.05a Explain the importance of written operating procedures and policies.
   5.B.06a Identify professional organizations and their benefits.
   5.B.07a Explain methods to effectively run a meeting.

   **Performance Examples:**
   1. Create a plan to keep track of tools and supplies in your classroom/shop.
   2. Work as a team to complete a project, including running and participating in problem-solving meetings.
   3. Contact a relevant professional organization and request information about its benefits, membership requirements, and costs.
   4. Clip print advertisements from local companies, identifying common themes and contrasting different styles.

5.C Describe methods for managing, organizing, retrieving and reporting financial data.
   5.C.01a Explain the role of small businesses in the economy.
   5.C.02a Extract and extrapolate data from financial documents, such as a pay-stub, budget, tax statement, and financial report.

   **Performance Examples:**
   1. Create and follow a budget for an in-class project.
   2. Identify equipment in your shop/lab that are considered as capital.
   3. From a pay-stub, determine gross salary, deductions, and net pay for a calendar year.
   4. Create a rate card or other list of standardized costs for services provided, based on research of local rates and practices.

5.D Apply labor and civil rights law and guidelines to business practice and decisions.
   5.D.01a List federal and state mandated employee rights.
   5.D.02a Describe proper working conditions for your industry.
   5.D.03a Explain the role of labor organizations.
   5.D.04a Discuss the importance of diversity and list methods of encouraging diversity in the workplace.
   5.D.05a Describe standard forms of employment contracts applicable to your industry.
5.D.06a State the current minimum wage, as well as wages for common jobs found within the field.

5.D.07a List opportunities for continual professional development.

**Performance Examples:**
1. Participate in and summarize a discussion with a member of a labor organization.
2. Participate in and summarize a discussion with a member of a civil rights organization.
3. While participating in a group project, write and follow job descriptions for each member of the team.
4. Evaluate a shop/lab in terms of safety, ergonomics, and workflow.

5.E Evaluate the effects of community relations on companies and the industry.

5.E.01a Describe the role that the industry/organization plays in different communities.

5.E.02a Describe the role that community interests play in a company's/organization’s decision-making process.

**Performance Example:**
1. Participate in a service project or community-centered event.

5.F Apply legal requirements and ethical considerations to business practice and decisions.

5.F.01a Identify laws that regulate businesses/organizations in your field.

5.F.02a Define the requirements for and protections given by copyright and trademark law.

5.F.03a Define the impact of the Americans with Disabilities Act and other civil rights legislation on your business/organization, employees, and customers.

5.F.04a Define ethical business practices for your field.

5.F.05a Identify trade-specific practices that support clean energy technologies and encourage environmental sustainability.

5.F.06c Demonstrate the use of problem-solving techniques when confronted with legal dilemmas or issues.

5.F.07c Compare and contrast behaviors and practices that could result in malpractice, liability or negligence.

5.F.08c Explain ways to comply with policies and requirements for documentation and record keeping.

5.F.09c Explain ways to comply with established risk management criteria and procedures.

5.F.10c Explain ways to comply with all established criteria for reportable incidents.

5.F.11c Explain ways to comply with non-discriminatory laws.

5.F.12c Perform duties according to regulations, policies, laws, and legislated rights of clients.

5.F.13c Explain ways to maintain clients rights according to the Patients' Bill of Rights.
5.F.14c Discuss the importance of practicing within licensure, certification, registration, and legislated scope of practice.

5.F.15c Apply the doctrine of informed consent.

5.F.16c Evaluate technological threats to confidentiality.

5.F.17c Apply mandated standards for harassment, labor, and employment laws.

5.F.18c Differentiate between morality and ethics and the relationship of each to health care outcomes.

5.F.19c Differentiate between ethical and legal issues impacting health care.

5.F.20c Contrast personal, professional and organizational issues impacting health care.

5.F.21c Contrast personal, professional and organizational ethics.

5.F.22c Analyze legal and ethical aspects of confidentiality.

5.F.23c Explain ways to maintain confidentiality.

5.F.24c Discuss bio-ethical issues related to health care.

5.F.25c Analyze and evaluate the implications of medical ethics.

5.F.26c Respect the interdisciplinary roles of team members.

5.F.27c Explain procedures used to report activities and behaviors by self and others that adversely affect the health, safety, or welfare of students, clients, or co-workers.

5.F.28c Demonstrate fairness and equal treatment of all persons.

5.F.29c Discuss the impact of religions and cultures on those giving and receiving health care with an understanding of past and present events.

5.F.30c Demonstrate respect of individual cultural, social, and ethnic diversity within the health care community.

5.F.31c Demonstrate procedures used to report findings of abuse.

5.F.32c Summarize procedures used to report abnormal client findings.

5.F.33c Explain Corporate Compliance.

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**Performance Examples:**

1. Research the ethical guidelines set forth by a professional organization related to your industry and participate in a debate over how to apply these guidelines to a variety of situations.

2. Create a portfolio of a variety of completed contracts and their uses.

3. Participate in and summarize a discussion with a lawyer, consumer advocate, or other legal professional.

4. Create a quick reference outline listing legal topics and related resources.

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**Strand 6: Technological Knowledge and Skills**

6.A Demonstrate proficiency in the use of computers and applications as well as an understanding of concepts underlying hardware, software, and connectivity.

6.A.01a Select and utilize the appropriate technology to solve a problem or complete a task.
6.A.02a Demonstrate file management skills (e.g., install new software, compress and expand files as needed, download files as appropriate).
6.A.03a Differentiate between different operating systems and demonstrate use of at least one to open and switch between programs and files.
6.A.04a Identify and demonstrate resolutions to simple hardware and software problems as they occur (e.g., frozen screen, disk error, printing problems).
6.A.05a Save, retrieve, load, format, and import data into, and export a variety of electronic documents (word processing, spreadsheet, database, AND desktop publishing).
6.A.06a Demonstrate the proper use of a variety of external peripherals and how they connect to a computer.
6.A.07a Illustrate methods of selecting and using search engines.
6.A.08a Send, receive, and manage electronic correspondence and files, in accordance with school policy.
6.A.09a Demonstrate proper use of electronic proofreading tools and explain reasons why these shouldn’t be relied upon solely.

**Performance Example:**
1. In the development of work-based projects, students demonstrate computer skills inherent in the word processing techniques used, the organization of data, use of photographic representation, research projects, and other relevant project based activities.

**6.B Demonstrate responsible use of technology and an understanding of ethics and safety issues in using electronic media.**
6.B.01a Identify ways in which technology is used in the workplace and in society.
6.B.02a Summarize the rights and responsibilities of the school’s Acceptable Use Policy.
6.B.03a Explain laws restricting use of copyrighted materials on the Internet.
6.B.04a Discuss the concerns about electronic communications, privacy and security, including protection from spyware and viruses.

**Performance Example:**
1. Describe how computers are used to increase efficiency, accuracy, and professionalism in the industry.

**6.C Demonstrate ability to use technology for research, problem solving, and communication.**
6.C.01a Locate, evaluate, collect, and process information from a variety of electronic sources.
6.C.02a Demonstrate the use of telecommunications and other media to interact or collaborate with peers, experts, and other audiences.

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6.C.03a Demonstrate the use of appropriate electronic sources to conduct research (e.g., Web sites, online periodical databases, and online catalogs).
6.C.04a Demonstrate proper style (with correct citations) when integrating electronic research results into a research project.
6.C.05a Collect, organize, analyze, and graphically present data using the most appropriate tools.
6.C.06a Present information, ideas, and results of work using any of a variety of communications technologies (e.g., multimedia presentations, Web pages, videotapes, desktop-published documents).
6.C.07a Identify capabilities of technology resources and describe how they can be used for lifelong learning.
6.C.08a Demonstrate the proper use of electronic tools and office communications equipment (telephone, fax, copier, etc).

**Performance Example:**

1. Student is able to effectively use various technologies in the work place.
Mandatory Certifications for Students in a Dental Assisting Program
CPR-American Heart Association, American Red Cross
Radiology Certification- Dental Assisting National Board
Infection Control- Dental Assisting National Board

List of Classroom Reference Books and Videos:

Infection Control in the Dental Environment
Book and Videos
Learning Resources Service
VA Medical Center
Washington, DC
And
Eastern Dental Education Center
VA Medical Center
Washington, DC

Infection Control Training and Policy Manual
McKenzie Management & Company

Nutrition: Principles and Application in Health Promotion
Suitor & Hunter

Nutrition for a Healthy Mouth
Rebecca Sroda

Eighth Edition Nutrition Essentials and Diet Therapy
Nancy J. Peckenpaugh and Charlotte Poleman

Eight Edition Understanding Nutrition
Eleanor Noss-Whitney and Sharon Rady-Rolfes

Nutrition in Preventive Dentistry: Science and Practice
Abraham E. Nizel D.M.D, M.S.D, F.A.C.D.

The Science of Nutrition
Abraham Nizel D.M.D., M.S.D. F.A.C.D.

Nutrition In Clinical Dentistry
Abraham Nizel D.M.D., M.S.D. F.A.C.D

Basic Nutrition in Health and Disease
Including Selection and Care of Food
Phyllis Sullivan Howe

Concepts in Dental Public Health
Jill Mason

Clinical Practice of the Dental Hygienist Ninth Edition
Esther Wilkins

The Dental Hygienist’s Guide to Nutritional Care
Judi Ratliff Davis and Cynthia Stegeman

Dental Hygiene in Review
Christina DeBiase

Complete Review of Dental Hygiene
Jaqueline N. Brian and Mary Danusis-Cooper

Foundations of Periodontics for the Dental Hygienist
Jill S. Nield-Gehrig and Donald E. Willman

Impacted Third Molar
George Winter

Orban’s Oral Histology and Embryology Ninth Edition
C.V. Mosby Company

Oral Microbiology
C.V. Mosby Company

Head, Neck, and Dental Anatomy Second Edition
Marjorie Short

Synopsis of Oral Histology
S.N Bhaskar

Body Structures & Functions Tenth Edition
Ann Senisi Scott and Elizabeth Fong

Dental Anatomy: It’s Relevance to Dentistry Sixth Edition
Julian B. Woelfel and Rickne C. Sheid

Dental Anatomy: A Self-Instructional Program Tenth Edition
Nancy Shobe Karst and Sarah K. Smith

Atlas of the Mouth
Published and Distributed from the American Dental Association

Grays Anatomy
Henry Gray

The Human Body
Jonathan Miller

Head Anatomy: Pertinent to Dentistry and Denture Prosthesis
Wernet Division of the Block Drug Company

Elements of Anatomy and Physiology Second Edition
Jacob & Francone

The Dental Pulp: Biologic Considerations in Dental Procedures
Samual Seltzer, D.D.S and I. B. Bender, D.D.S.

Permar’s Oral Embryology and Microscopic Anatomy
Rudy C. Melfi and Keith E. Alley

Dental Anatomy: A self Instructional Program Ninth Edition
Teaching Research; A Division of The Oregon State System of Higher Education

Anatomy of Orofacial Structures Fifth Edition
Brand and Isselhard

A Manual of Oral Embryology and Microscopic Anatomy
Dorothy Permar

Oral Histology; Inheritance and Development
D. Vincent Provenza

Synopsis of Gross Anatomy
John B. Christianson and Ira Rockwood Telford

Textbook of Head and Neck Anatomy Third Edition
James L. Hiatt and Leslie P. Gartner

Jamieson’s Illustrations of Regional Anatomy
Churchill Livingstone

General Anesthesia and Sedation in Dentistry
C M Hill and P J Morris

Essential Anatomies: Oral and Head/Neck
Marjorie J. Short

Textbook of Head and Neck Anatomy Second Edition
James L. Hiatt and Leslie P. Gartner

A Textbook of Dental Anatomy and Physiology
Russell Wheeler

Bailey’s Textbook of Histology Sixteenth Edition
W.M Copenhaver, Richard P. Bunge, and Mary B. Bunge

Permar’s Oral Embryology and Microscopic Anatomy Tenth Edition
Rudy C. Melfi and Keith E. Alley

Oral Anesthesia
Kurt H. Thoma

Dental and Oral Tissues: An Introduction for paraprofessionals in Dentistry
Letty Moss-Salentijn and Marlene Klyvert

Your Teeth
John Chipping

The Study of the Masticatory System: Dental Anatomy and Occlusion
Bertram S. Kraus, Ronald E. Jordan, and Leonard Abrams

Understanding Human Anatomy and Physiology
Eldra Pearl Solomon and Gloria Phillips

Janet Bridger Chernega

Medical Emergencies in the Dental Office
Stanley F. Malamed

Medical Emergencies in the Dental Office Fifth Edition
Stanley F. Malamed

Pharmacology for Health Professionals
Evelyn Salerno

The Medical History: Clinical Complications and Emergency Prevention in Dental Settings
Frieda Pickett and JoAnn Gurenlian

Emergency Guide for Dental Auxiliaries
Janet Bridger Chernega
Medical Terminology: A Short Course Second Edition
Davi-Ellen Chabner

Handbook of Nitrous Oxide and Oxygen Sedation
Morris Clark and Ann Brunick

Medical Terminology in A Flash: Flash-Card Packet and audio CD
Sharon Eagle

Understanding Human Behavior
Mary Elizabeth Milliken

Pharmacotherapeutics in Dentistry
Louis P. Gangarosa, Alfred E. Ciarlone, and Arthur H. Jeske

Applied Pharmacology for the Dental Hygienist Third Edition
Barbara S. Requa-Clark and Sam V. Holroyd

Illustrated Dental Terminology
John H. Manhold and Michael P. Balbo

Handbook of Medical Emergencies in the Dental Office
Stanley F. Malamed

Dental Assistant
Andujo

Mosby’s Pocket Dictionary of Medicine, Nursing, and Allied Health
Second Edition
Mosby

Mosby’s Dental Dictionary
Thomas J. Zwemer

Mosby’s Dental Drug Reference Fourth Edition
Gage and Pickett

Stedman’s Concise Medical Dictionary for the Health Professionals
Fourth Edition

Taber’s Encyclopedic Medical Dictionary Edition 17

Taber’s Encyclopedic Medical Dictionary Edition 19
Drug Information Handbook for Dentistry Third Edition
Richard L. Wynn, Timothy Meiller, and Harold L. Crossley

Clinical Aspects of Dental Materials
Marcia Gladwin and Michael Bagby

Dental Materials: Clinical Applications for Dental Assistants and Dental Hygienists
Hatrick, Eakle, and Bird

Materials in Dentistry Second Edition
Jack L. Ferracane

Dental Materials Sixth Edition
Craig, O’Brien, and Powers

Dental Materials Seventh Edition
Craig, Powers, and Wataha

Dental Materials Eighth Edition
Craig, Powers, and Wataha

The Science of Dental Materials
Skinner and Phillips

Elements of Dental Materials Fourth Edition
For Dental Hygienists and Assistants
Phillips

Dental Materials Fifth Edition
Craig, O’Brien, and Powers

Elements of Dental Materials Fifth Edition
Phillips and Moore

Materials and Procedures for Today’s Dental Assistant
Ellem Dietz-Bourguignon
Thompson and Delmar Learning

Dental Radiography
An Introduction for Dental Hygienists and Assistants
O’Brien

Radiologic Anatomy of the Jaws
Harrison M. Berry, Jr.

Dental Radiography Laboratory Manual
Sandra Slack Olson

Dental Radiography Principles and Techniques
Second Edition
Joen Iannucci Haring and Laura Jansen

Dental Radiography Principles and Techniques
Joen Iannucci Haring and Laura Jansen Lind

Oral Radiology Principles and Interpretation Fourth Edition
White and Pharoah

Exercises in Oral Radiographic Interpretation
Second Edition
Langlais and Kasle

Dental Radiology
Pauline C. Anderson and Susan Clifford

Radiology for Dental Auxiliaries Fourth Edition
Herbert H. Frommer

Essentials of Dental Radiography for Dental Assistants and Dental Hygienists Third Edition
Wolf deLyre/Orlen Johnson

Essentials of Dental Radiography for Dental Assistants and Dental Hygienists Fourth Edition
Wolf deLyre/Orlen Johnson

Essentials of Dental Radiography for Dental Assistants and Dental Hygienists Fifth Edition
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Herbert H. Frommer
Oral Roentgenographic Diagnosis
Stafne/Gibilisco

Kasle

Radiographic Imaging for Dental Auxiliaries
Miles, Van Dis, Jensen, and Ferretti

Radiology for Dental Auxiliaries Study Guide Sixth Edition
Herbert H. Frommer

Fundamentals of Dental Radiography Third Edition
Lincoln R. Manson-Hing

Radiology for Dental Auxiliaries Study Guide Seventh Edition
Herbert H. Frommer

Instrument Sharpening
US Dept. of Health, Education, and Welfare

Principles of Dental Imaging Second Edition
Olaf E. Langland, Robert P. Langlais, and John Preece

Dental Assisting Professionalism, Legal Considerations, and Office Management Third Edition
The University of North Carolina Press

Dental Assisting Clinical Sciences Third Edition
The University of North Carolina Press

Dental Assisting Clinical Chairside Assisting Third Edition
The University of North Carolina Press

Dental Assisting Basic Sciences Third Edition
The University of North Carolina Press

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Stephen R. Matteson, Cy Whaley, and Vickye C. Secrist

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The University of North Carolina Press

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Jan Egelberg and Anita Badersten
Teeth Health and Appearance
American Dental Association

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Lincoln R. Manson-Hing

Periodontal Screening and Recording
American Dental Association

Thompson Healthcare

Thompson Healthcare

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Roger E. Barton, Stephen R. Matteson, and Richard E. Richardson

Mosby’s Comprehensive Dental Assisting A clinical Approach
Betty Ladley Finkbeiner and Claudia Sullens Johnson

Modern Dental Assisting Fifth Edition
Torres, Ehrlich, Bird, and Dietz

Handbook of Expanded Dental Auxiliary Practice
Castano/Alden

Essentials of Dental Assisting
Ann Ehrlich, Hazel O. Torres, and Doni Bird

Four Handed Dentistry for Dentists and Assistants
Edward Wolfson

Handbook of Clinical Dental Auxiliary Practice Second Edition
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Contemporary Dental Assisting
Darlene Eaton Novak

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An Introduction to Fixed Appliances 3rd Edition  
K G Isaacson and J K Williams

Handbook of Oral Diagnosis and Treatment Planning  
McElroy/Malone

Diseases of the Human Body  
Warden-Tammaro and Lewis

Color Atlas of Oral Pathology  
J.B. Lippincott

Community Dental Health Fourth Edition  
George M. Gluck and Warren M. Morganstein

A Textbook of Preventative Dentistry  
Stallard

Removable Partial Prosthodontics Fourth Edition  
Davis Henderson/Victor L. Steffel

Complete Denture Prosthodontics Third Edition  
John J. Sharry

Clinical Periodontology  
Glickman

Modern Practice in Crown and Bridge Prosthodontics  
Johnston, Phillips, and Dykema

Swenson’s Complete Dentures Sixth Edition  
Carl O. Boucher

Stanley D. Tylman

Operative Dentistry Second Edition  
H. William Gilmore/ Melvin R. Lund

A Manual of Oral Surgery Techniques
Schram

Handbook of Orthodontics 3rd edition
Robert E. Moyers

Endodontontology: Biologic Considerations in Endodontic Procedures
Seltzer

Dentistry for the Child and Adolescent Seventh Edition
Ralph E. McDonald and David R. Avery

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Glen P. McGivney and Alan B. Carr

Primary Preventive Dentistry 2nd Edition
Norman O. Harris and Arden G. Christen

The Design, Construction, and Use of Removable Orthodontic Appliances Fifth Edition
C. Philip Adams

Illustrated Dictionary of Dentistry
Jablonski

A Textbook of Oral Pathology Fourth Edition
Shafer/ Hine/Levy

Atlas of Clinical Pathology of the Oral Mucous Membrane
Orban and Wentz

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Abramson and Norris

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Cheryl B. Wiles and William J. Ryan

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James J. Crawford

Practical Infection Control in Dentistry
James A. Cottone, Geza, T. Terezhalmy, and John A. Molinari

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American dental Association

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Maintain Equipment and Operatory Instructional Materials for Dental Health Professionals
D.A.E. Project

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Ruth Woodrow

Introduction to Health Care Second Edition
Joyce Mitchell and Lee Haroun

Delmar’s Dental Assisting Video Series
Thompson Learning

Assess Periodontal Health Slides
Teachers College Press

Oral Landmarks Slides
Teachers College Press

Anatomical Structures of the Periodontium and Their Healthy Appearance Slides
Teachers College Press

Intraoral Radiography Slides
Kodak

Extraoral Radiography Slides
Kodak

Dam-it, It’s Easy Video Education Series
Hygienic

Infection Control: Dental Video
Videolink

The Ultimate Hygienist Tape
Dental Vision Productions

Custom Trays, Relines, and Repairs Technique Video Series
Triad

Retainers, Nightguards, and Transitional Partial Dentures Technique Video Series
Triad

Radiology Slide Series
Multi-Media Publishing

Dental Materials Slide Series
Multi-Media Publishing

Modern Dental Assisting Ninth Edition
Bird/Robinson

Essentials of Dental Assisting Fourth Edition
Robinson/Bird

Dental Anatomy: All About Teeth DVD
Insight Media

Dental Instruments and Procedure DVD
Insight Media

Radiology Made Easy DVD
Insight Media

Dental Materials: Supplies Used In Dentistry DVD
Insight Media

Infection Control and Emergencies in the Dental Office DVD
Insight Media