

Dental Assisting Technology Mississippi Curriculum Framework

Dental Assisting Technology - CIP: 51.0601 (Dental Assisting/Assistant)

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The Office of Curriculum and Instruction (OCI) was founded in 2013 under the Division of Workforce, Career, and Technical Education at the Mississippi Community College Board (MCCB). The office is funded through a partnership with The Mississippi Department of Education (MDE), who serves as Mississippi's fiscal agent for state and federal Career and Technical Education (CTE) Funds. The OCI is tasked with developing statewide CTE curriculum, programming, and professional development designed to meet the local and statewide economic demand.

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National Certification

Holding a Dental Assisting National Board (DANB) certification gives you an edge over other dental assistants. Employers prefer job candidates with DANB certification, and recruiters often seek out DANB certificates to fill dental assisting positions. DANB provides lists of certificates to dentists and employers who are looking to hire dental assistants who hold DANB certification. DANB certificates contribute to high-quality oral healthcare. As a DANB certificate, you will enhance your dental team's level of competency, efficiency, reputation and credibility. Employers and patients alike value DANB's certifications.

Dental Assisting National Board of Certified Dental Assistant Examination Topics

Radiation Health and Safety

RHS 1

RHS 2

RHS 3

RHS 4

Infection Control

ICE 1

ICE 2

ICE 3

ICE 4

General Chairside

GCA 1

GCA 2

GCA 3

GCA 4

GCA 5

GCA 6

Research Abstract

In the winter of 2023, the Office of Curriculum and Instruction (OCI) met with the different industry members who made up the advisory committees for Dental Assisting program. An industry questionnaire was used to gather feedback concerning the trends and needs, both current and future, of their field. Program faculty, administrators, and industry members were consulted regarding industry workforce needs and trends.

Industry advisory team members from the college involved with this program were asked to give input related to changes to be made to the curriculum framework. Specific comments related to soft skills needed in this program include having critical thinking skills and written and oral communication skills. Occupation-specific skills stated include having educational and clinical knowledge.

Industry Job Projection Data

A summary of occupational data is available from the Mississippi Department of Employment Security.

<https://mdes.ms.gov/information-center/labor-market-information/>

Articulation

Check with the local community college CTE administration for articulation agreements.

Industry Credentials, Certifications, and Professional Licensure

As curricula are revised or developed for Career Technical Education (for credit) programs at Mississippi's community colleges, appropriate industry credentials/certifications/professional licensure are identified (where applicable).

Each community college cooperating with businesses/industries in their college district determines if and when industry credentials/certifications/professional licensure are warranted.

Contact each community college for more information.

Dual Enrollment

See the "Procedures Manual for Dual Enrollment and Accelerated Programs"

http://www.mississippi.edu/cjc/dual_enrollment.asp

Revision History

2011, Research and Curriculum Unit, Mississippi State University

2018, Office of Curriculum and Instruction, Mississippi Community College Board

2024, Office of Curriculum and Instruction, Mississippi Community College Board

Program Description

Dental Assisting

The Dental Assisting Technology curriculum is a one-year program of study designed to prepare the student for employment and advancement in the dental assisting field. The curriculum requires a minimum of 46-47 semester hours of courses with a certificate granted upon completion of the program. If the student desires, an Associate of Applied Science degree may be obtained by completing additional prescribed courses.

The program includes lecture hours, lab hours, and supervised clinical experiences. In the clinical experiences, the student will assist the dentist at chairside in private offices, clinics, and state facilities, as applicable.

Upon graduation from the program, the student may make application for a Radiology permit which is necessary for taking x-rays in a dental office. While in the program or following completion of the program, the student is eligible to sit for the Dental Assisting National Board Certification Exams.

Industry standards are based on the *Dental Assisting National Board Certified Dental Assistant Examination Topics*.

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Suggested Course Sequence

Required Courses (Dental Assisting)

Course Number	Course Name	Semester Credit Hours	SCH Breakdown		Clinical	Total Contact Hours	Program Certifications
			Lecture	Lab			
DAT 1111	Dental Orientation	1	1	0	0	15	Dental Assisting National Board Exam (DANB)
DAT 1214	Dental Assisting Materials	4	2	4	0	90	
DAT 1313	Dental Science I	3	3	0	0	45	
DAT 1323	Dental Science II	3	3	0	0	45	
DAT 1415	Chairside Assisting I	5	2	6	0	120	
DAT 1423	Chairside Assisting II	3	2	2	0	60	
DAT 1433	Chairside Assisting III	3	2	2	0	60	
DAT 1513	Dental Radiology I	3/4	2/3	2/2	0/0	60/75	
DAT 1522	Dental Radiology II	2	0	4	0	60	
DAT 1612	Dental Health Education	2	2	0	0	30	
DAT 1714	Practice Management	4	3	2	0	75	
DAT 1815 OR DAT 1932	Clinical Experience I OR Clinical Practicum I	5/2	1/0	0/0	12/6	195/90	
DAT 1822 OR DAT 1943	Clinical Experience II OR Clinical Practicum II	2/3	0/0	0/0	6/9	90/135	
DAT 1952	Clinical Practicum III	2	0	0	6	90	
	Other Instructor Approved Elective(s) per local community college	6					
	TOTAL	46/47					

Dental Assisting Technology courses listing

Course Number	Course Name	Semester Credit Hours	SCH Breakdown			Total Contact Hours	Program Certification
			Lecture	Lab	Clinical		
DAT 1111	Dental Orientation	1					
DAT 1214	Dental Assisting Materials	4					
DAT 1313	Dental Science I	3					
DAT 1323	Dental Science II	3					
DAT 1415	Chairside Assisting I	5					
DAT 1423	Chairside Assisting II	3					
DAT 1433	Chairside Assisting III	3					
DAT 1513	Dental Radiology I	3					
DAT 1522	Dental Radiology II	2					
DAT 1612	Dental Health Education	2					
DAT 1714	Practice Management	4					
DAT 1815	Clinical Experience I	5					
DAT 1822	Clinical Experience II	2					
DAT 1952	Clinical Practicum III	2					

General Education Core Courses

To receive the Associate of Applied Science degree, a student must complete all of the required coursework found in the Career Certificate option, Technical certificate option, and a minimum of 15 semester hours of General Education core. The courses in the General Education Core may be spaced out over the entire length of the program so that students complete some academic and Career Technical courses each semester or provided primarily within the last semester. Each community college will specify the actual courses that are required to meet the General Education Core Requirements for the Associate of Applied Science degree at their college. The Southern Association of Colleges and Schools Commission on Colleges (SACSCOC) Section 9 Standard 3 of the *Principles of Accreditation: Foundations for Quality Enhancement*¹ describes the general education core.

Section 9 Standard 3:

3. The institution requires the successful completion of a general education component at the undergraduate level that

a) is based on a coherent rationale.

b) is a substantial component of each undergraduate degree program. For degree completion in associate programs, the component constitutes a minimum of 15 semester hours of the equivalent; for baccalaureate programs, a minimum of 30 semester hours or the equivalent.

c) ensures breadth of knowledge. These credit hours include at least one course from each of the following areas: humanities/fine arts, social/behavioral sciences, and natural science/mathematics. These courses do not narrowly focus on those skills, techniques, and procedures specific to a particular occupation or profession.

The curriculum must include content in the following four areas: general education, biomedical sciences, dental sciences and dental hygiene science. This content must be integrated and of sufficient depth, scope, sequence of instruction, quality and emphasis to ensure achievement of the curriculum's defined competencies. A curriculum document must be submitted for each course included in the dental hygiene program for all four content areas.

2-8a General education content must include oral and written communications, psychology, and sociology.

2-8b Biomedical science content must include content in anatomy, physiology, chemistry, biochemistry, microbiology, immunology, general and maxillofacial pathology and/or pathophysiology, nutrition and pharmacology. Commission on Dental Accreditation (CODA) –Accreditation Standards for Dental Hygiene.

General Education Courses

Course Number	Course Name	Semester Credit Hours	SCH Breakdown		Total Contact Hours	Contact Hour Breakdown		Certification Information
			Lecture	Lab		Lecture	Lab	
	Humanities/Fine Arts	3						
	Social/Behavioral Sciences	3						
	Math/Science	3						
	Academic electives	6						
	TOTAL	15						

¹ Southern Association of Colleges and Schools Commission on Colleges. (2024). *The Principles of Accreditation: Foundations for Quality Enhancement*. Retrieved from <https://sacscoc.org/app/uploads/2024/01/2024PrinciplesOfAccreditation.pdf>

². Commission on Dental Accreditation. (2022). *Accreditation Standard for Dental Assisting and Dental Hygiene Education Programs* Retrieved from https://coda.ada.org/-/media/project/ada-organization/ada/coda/files/dental_assisting_standards.pdf?rev=b5b275adc53045a89442626d24ab1447&hash=94B5725156DE75E1C22EF0E677270B35

- c. Discuss the employee's relationship to the formal and informal systems of the dental office.
- d. Discuss the development of one's personality and how it can affect patients in the office for treatment.
- e. Describe patients' fears related to the dental office and to dental treatment.
- f. Differentiate between fears that adults have and those of children.
- g. Discuss ways that a dental team can reduce anxiety and fear in their patients.
- h. Discuss ways to communicate with patients, fellow employees, and the dentist.
- i. List some ways to reduce stress while working in the dental office.
- j. List the most common reactions or responses to stress and frustrations associated with the dental office.

Dental Assisting National Board of Certified Dental Assistant Examination Topic

General Chairside

GCA6

Course Number and Name: **DAT 1214 Dental Assisting Materials**

Description: Dental safety precautions will be emphasized. Includes a comprehensive study of the physical and chemical properties of dental materials. Lab sessions include measuring, manipulating, and preparing dental materials for use in the dental operatory and dental laboratory.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Clinical	Contact Hours
4	2	4	0	90

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Relate safety requirements for handling dental materials and equipment. ^{ICE3, ICE4}
 - a. Comply with safety regulations at all times.
 - b. Discuss disposal of hazardous wastes, including mercury, according to the local, state, and federal regulations.
 - c. State the function and handling of mercury.
 - d. Discuss use of a special light for light activated composite resin.
 - e. Describe the disinfection of an impression.
2. Identify various dental materials. ^{GCA2, GCA3}
 - a. Survey the types of dental restorations.
 - b. Classify the restorative materials as permanent, temporary, or intermediary bases.
 - c. Cite the physical and biological considerations for selecting dental materials.
 - d. Describe physical, electrical, and mechanical properties of dental materials in definable terms.
3. Describe characteristics of gypsum products. ^{GCA3}
 - a. Define model, cast, and die.
 - b. Identify the classes of gypsum products.
 - c. Discuss the physical and chemical properties of gypsum products.
 - d. Discuss manipulation of gypsum products.
4. Describe the uses and properties of preventive dental materials. ^{GCA2, GCA3}
 - a. Discuss the preventive dental materials:
 - i. Fluoride
 - ii. Pit and fissure sealants
 - iii. Mouth protectors
 - iv. Desensitizers
 - b. List the armamentarium for the finishing and polishing procedures for preventive dental materials.
 - c. Describe the finishing and polishing techniques for preventive dental materials.
5. Explain characteristics of dental cements and liners. ^{GCA2, GCA3}
 - a. Summarize the uses of various dental cements, i.e., cementation, base, temporary restorations, liners, and varnish.
 - b. List the cements suitable for cementation and the composition, properties, and manipulation of each:
 - i. Zinc phosphate
 - ii. Zinc oxide eugenol
 - iii. Zinc polycarboxylate
 - iv. Glass ionomer
 - c. List the cements suitable for bases and temporary fillings and the properties and manipulation of each:
 - i. Zinc oxide eugenol
 - ii. Calcium hydroxide
 - d. Differentiate between cavity liner and varnish.
 - e. Discuss the cements used for special applications.
6. Discuss the uses and properties of dental waxes. ^{GCA3}

- a. Explain the properties and laboratory use of inlay wax.
 - b. Describe other dental waxes and their uses.
7. Discuss the uses and properties of plastics in dentistry. ^{GCA2, GCA3}
- a. Describe the use of plastics used in prosthetics.
 - b. List the types of direct esthetic restorative material.
 - c. State the composition, setting reaction, properties, and manipulation of unfilled resin.
 - d. Compare the composition and reactions of composite resins.
 - e. Discuss the properties and clinical qualities of composite resins.
 - f. Describe the manipulation of each type of composite resin.
 - g. Explain the ionomers as restorative materials.
 - h. List the armamentarium for the finishing and polishing techniques for plastic dental materials.
 - i. Describe the finishing and polishing techniques for plastic dental materials.
8. Describe the uses and properties of precious and non-precious metals. ^{GCA2, GCA3}
- a. Explain the types and properties of pure gold.
 - b. List the constituents of a gold alloy and the effect of each constituent.
 - c. Describe each of the four types of gold alloys.
 - d. Explain the composition, uses, and general properties of non-precious alloys.
 - e. List the armamentarium for finishing and polishing techniques.
 - f. Describe the finishing and polishing techniques for precious and non-precious metal dental materials.
9. Discuss the properties of amalgam. ^{GCA2, GCA3}
- a. Explain amalgam and its clinical uses.
 - b. State the function of mercury.
 - c. List the composition of amalgam alloys.
 - d. Explain the properties of amalgam:
 - i. Dimensional change
 - ii. Strength
 - iii. Creep
 - iv. Tarnish and corrosion
 - e. Discuss the correct manipulation of amalgam:
 - i. Selection
 - ii. Proportioning
 - iii. Mixing
 - iv. Condensation
 - v. Finishing
 - f. List the armamentarium for finishing and polishing techniques.
 - g. Describe the finishing and polishing techniques for amalgam dental materials.
10. Describe the uses and properties of impression materials. ^{GCA2, GCA3}
- a. List the desirable properties of impression materials.
 - b. Classify impression materials as rigid or flexible.
 - c. State the composition, properties, and use of the following impression materials:
 - i. Alginate
 - ii. Polysulfide rubber
 - iii. Silicone rubber
 - iv. Polyether rubber
 - d. Describe the steps and supplies necessary to manipulate and take an impression with the following materials:
 - i. Alginate
 - ii. Rubber materials
 - (1) Polysulfide
 - (2) Silicone/polysiloxane
 - (3) Polyether
11. Demonstrate manipulation of gypsum products. ^{GCA2, GCA3}

- a. Measure gypsum and water for pouring a study model impression.
 - b. Assemble armamentarium for mixing a gypsum product.
 - c. Mix a gypsum product for a cast and a model.
12. Demonstrate manipulation of dental cements and liners. ^{GCA2, GCA3}
- a. Select armamentarium necessary to prepare a mix of zinc phosphate.
 - b. Prepare a mix of zinc phosphate cement for (1) a luting agent and (2) cement base.
 - c. Select armamentarium necessary to prepare a mix of zinc oxide eugenol (conventional type) and reinforced.
 - d. Prepare a mix of conventional zinc oxide eugenol to be used for (1) a base and (2) treatment filling.
 - e. Prepare a mix of reinforced zinc oxide eugenol for (1) luting, (2) base, and (3) treatment filling.
 - f. Select armamentarium necessary to prepare a mix of polycarboxylate cement.
 - g. Prepare a mix of polycarboxylate cement for luting.
 - h. Select armamentarium for mixing glass ionomer cement.
 - i. Prepare a mix of glass ionomer cement for luting.
 - j. Select equipment and materials necessary to prepare a mix of calcium hydroxide.
 - k. Prepare a calcium hydroxide liner.
 - l. Assemble the armamentarium for the placement of a cavity varnish or base.
13. Describe various dental waxes. ^{GCA2, GCA3}
- a. Identify various types of processing waxes.
14. Demonstrate manipulation of dental plastics.
- a. Prepare the equipment and materials required with 100% accuracy.
 - b. Manipulate composite resin.
 - c. Prepare materials to be used with composite resin, acid etching agents, bonding agent, and lights.
 - d. Demonstrate proper use of a curing light for light activated composite resin.
15. Demonstrate manipulation of dental amalgam. ^{GCA2, GCA3}
- a. Prepare the equipment and materials required to manipulate amalgam mechanically with 100% accuracy.
 - b. Produce a mix of amalgam (pre-measured capsules).
16. Demonstrate manipulation of impression materials. ^{GCA2, GCA3}
- a. Select the necessary equipment and materials to prepare irreversible hydrocolloid (alginate).
 - b. Mix alginate impression material.
 - c. Take an impression of a typodont using alginate material.
 - d. Construct sets of study models using gypsum products.
 - e. Trim sets of study models.
 - f. Select the necessary equipment and material for the preparation of rubber impression materials.
 - g. Prepare a mix of rubber impression material (polysiloxane, silicone, polysulfide, and polyether).
 - h. Load the syringe with light-bodied rubber impression material and prepare the companion tray material.
 - i. Take an impression of a typodont using rubber impression material.

Dental Assisting National Board of Certified Dental Assistant Examination Topics

Infection Control

ICE 3

ICE 4

General Chairside

GCA 2

GCA 3

Course Number and Name: **DAT 1313 Dental Science I**

Description: Physiology, anatomy, and morphology as related to the oral cavity. Content organized to include a study of the body systems, the anatomy of the head and neck, and the form of each of the 32 teeth.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Clinical	Contact Hours
3	3	0	0	45

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Describe primary and permanent dentition. ^{GCA1}
 - a. Name the individual teeth (primary and secondary) and their proper position.
 - b. Indicate how position relates to dental numbering systems.
 - c. Describe the four groups of teeth and the general functions of each group.
 - d. Describe the five surfaces of both anterior and posterior teeth.
 - e. Identify point and line angles, contact areas, and embrasure areas of the teeth.
 - f. Identify the structures of the crown surfaces of the teeth.
 - g. Name the major parts of the teeth.
 - h. Locate parts of the teeth on a teaching model.
 - i. Describe the differentiating characteristics of the maxillary teeth.
 - j. Describe the differentiating characteristics of the mandibular teeth.
 - k. Discuss occlusion and maintenance of tooth position.
 - l. Identify succedaneous and non-succedaneous teeth.
2. Illustrate the anatomy of a tooth. ^{GCA1}
3. Describe the anatomy and physiology of the head and neck. ^{GCA1, RNS1}
 - a. Identify the bones that are anatomical landmarks of the cranium.
 - b. Identify the bones that form the skeleton of the face.
 - c. Identify the major anatomical landmarks of the mandible.
 - d. Identify the temporomandibular joint.
 - e. Discuss the function of the temporomandibular joint.
 - f. Describe the muscles of mastication and the function of each.
 - g. Locate the paranasal sinuses.
 - h. Describe the function of the paranasal sinuses.
 - i. Identify the major anatomical landmarks of the hard palate.
 - j. Identify the anatomical landmarks of the mouth.
 - k. Locate the salivary glands and ducts.
 - l. Identify the trigeminal nerve and trace the nerve supply to the individual teeth.
 - m. Identify the arteries and veins that supply the head and neck region.
4. Describe the relationships of body systems to the dental patient. ^{GCA1}
 - a. Relate the importance of basic sciences to dental assisting.
 - b. Define anatomy and physiology.
 - c. Define terms that are used to describe the position of body parts.
 - d. Describe the general composition of the body.
 - e. Identify the four body cavities.
 - f. Describe the major organs included in each body cavity.
 - g. List the components and functions of the skeletal system.

- h. List the components and functions of the muscular system.
- i. List the components and functions of the nervous system.
- j. List the components and functions of the circulatory system.
- k. List the components and functions of the respiratory system.
- l. List the components and functions of the digestive system.
- m. List the components and functions of the integumentary system.
- n. List the components and functions of the endocrine system.
- o. List the components and functions of the reproductive system.

Dental Assisting National Board of Certified Dental Assistant Examination Topics

Radiation and Health Safety

RHS 1

General Chairside

GCA 1

Course Number and Name: **DAT 1323 Dental Science II**

Description: Embryology, pharmacology, microbiology, and pathology as related to dentistry. Content organized to give the student basic information required for effective dental assisting.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Clinical	Contact Hours
3	3	0	0	45

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Discuss embryology as related to dentistry. ^{GCA1, GCA4}
 - a. Name the three basic embryonic cell layers and the structures that form each.
 - b. State the characteristics and functions of the four primary types of human tissue.
 - c. Discuss the processes in the early development of the nose and face.
 - d. Discuss the early development of the tongue and palate.
 - e. Discuss the factors that can affect prenatal development.
 - f. Discuss each stage of tooth development.
 - g. Discuss the composition and formation of the four major tissues of the teeth.
 - h. Discuss the formation of the tissues surrounding the teeth.
 - i. Discuss eruption problems.
 - j. Discuss the process of eruption of the teeth.
 - k. Discuss the eruption sequence for the primary teeth and the approximate ages for each primary tooth erupting into the oral cavity.
 - l. Discuss the development of succedaneous teeth.
 - m. Discuss the eruption sequence for the permanent teeth and the approximate ages for each erupted permanent tooth.

2. Discuss pharmacology as related to dentistry. ^{GCA2, GCA5, GCA6}
 - a. Define pharmacology.
 - b. Describe the different parts of the Controlled Substances Act as follows:
 - i. Schedule I
 - ii. Schedule II
 - iii. Schedule III
 - iv. Schedule IV
 - v. Schedule V
 - c. State the difference between generic drugs and brand name drugs.
 - d. Identify the parts of a prescription and the purpose of each.
 - e. Explain the purpose of a prescription.
 - f. Identify the English equivalents of the Latin abbreviations used on a prescription.
 - g. Discuss the differences between methods of administering drugs.
 - h. Identify factors in that can lead to deterioration of medications and drugs.
 - i. Define the terms associated with the effects of drugs on the body.
 - j. Discuss the current drugs including indications and contraindications:
 - i. Analgesics
 - ii. Antibiotics
 - iii. Miscellaneous drugs used in the dental office on patients
 - k. Identify drugs commonly seen on a patient's medical history.
 - l. Identify the brand names and chemical names of commonly used local anesthetics in the dental office.

3. Discuss microbiology as related to dentistry. ^{ICE1, ICE2, ICE3, ICE4, GCA1}
- Describe the major events of the history of microbiology.
 - Explain the five different types of microorganisms and the physical characteristics of each (protozoa, bacteria, fungi, virus, rickettsia).
 - List methods by which microorganisms produce disease.
 - Define terms associated with pathogenic and non-pathogenic microorganisms.
 - Discuss methods by which disease may be transmitted in a dental office.
 - Discuss resistance to infection by the host and related terms.
 - Define inflammation and the signs related to inflammation.
 - Discuss microorganisms associated with dental caries, periodontal problems, and pulp conditions.
4. Discuss oral pathology as related to dentistry. ^{RHS1, ICE4, GCA1, GCA4, GCA5}
- Define the three factors which cause oral disorders.
 - Discuss reaction of tissue to injury, and the behavior of cells and the structural changes that result from injury.
 - Describe distinguishing characteristics of developmental anomalies that occur in the oral cavity.
 - Describe characteristics of developmental anomalies that occur in tooth development.
 - Define terms describing hard tissue defects that may occur during tooth formation.
 - Define terms relative to pathological conditions that occur after the teeth have erupted.
 - Explain the pathological and developmental conditions of dental caries as characterized by decalcification and microbial invasion.
 - Describe dental pulp disorders by defining given terms and stating the conditions and treatment of the disorder.
 - Define the terms related to oral mucous membrane conditions.
 - Discuss conditions that are caused by viral infections.
 - Describe canker sores and the causative agent.
 - Identify diseases caused by fungus infections.
 - Identify and describe healthy oral tissues.
 - Discuss oral pigmentation, traumatic, thermal, and chemical injuries to the teeth and related structures.

Dental Assisting National Board of Certified Dental Assistant Examination Topics

Radiation Health and Safety

RHS 1

Infection Control

ICE 1

ICE 2

ICE 3

ICE 4

General Chairside

GCA 1

GCA 2

GCA 4

GCA 5

GCA 6

Course Number and Name: **DAT 1415 Chairside Assisting I**

Description: Comprehensive study of information relating to assisting at the dental chair. Laboratory sessions include all phases of chairside assisting from seating the patient to postoperative care in the treatment room.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Clinical	Contact Hours
5	2	6	0	120

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Describe infection control procedures in a preclinic setting. ^{ICE1, ICE2, ICE3, ICE4, GCA5}
 - a. Explain safety procedures for preclinical setting.
 - b. Define terms related to sterilization.
 - c. Describe methods used in a dental office to disinfect or sterilize.
 - d. Differentiate between the different levels of EPA-approved chemical disinfectants.
 - e. State the importance of infection control.
 - f. Describe the various modes of disease transmission.
 - g. State the various factors related to disease producing capabilities.
 - h. Define terms related to infection control.
 - i. Differentiate between HBV and HIV.
 - j. State OSHA guidelines regarding standard operating procedures for infection control.
 - k. Describe barrier techniques.
2. Demonstrate infection control procedures in a preclinic setting. ^{ICE1, ICE2, ICE3, ICE4, GCA2, GCA3}
 - a. Demonstrate handwashing technique.
 - b. Prepare instruments for sterilization and storage.
 - c. Demonstrate barrier placement.
 - d. Demonstrate handling of instruments to maintain asepsis.
3. Assess patient data. ^{GCA1, GCA2, GCA4, GCA5}
 - a. State the importance of taking an accurate medical and dental history.
 - b. Recognize the vital signs of the patient:
 - i. Pulse
 - ii. Respiration rate
 - iii. Blood pressure
 - iv. Temperature
 - v. Pupils of the eyes
 - vi. State of consciousness
 - vii. Ability to move extremities
 - viii. Reaction to pain
 - c. Identify the equipment for measuring the vital signs.
 - d. Measure the following:
 - i. Pulse
 - ii. Temperature
 - iii. Blood pressure
 - iv. Respiration rate
 - e. Record the following:
 - i. Pulse
 - ii. Temperature
 - iii. Blood pressure
 - iv. Respiration rate

4. Describe the role of the assistant in chairside emergencies. ^{ICE4, GCA1, GCA2, GCA4, GCA5}
 - a. Describe the contents of the emergency kit and other emergency equipment and their use.
 - b. Describe the role in providing first aid for the following medical emergencies:
 - i. Shock (all types)
 - ii. Pulmonary arrest
 - iii. Cardiac arrest
 - iv. Diabetes mellitus
 - v. Hypoglycemia
 - vi. Epilepsy
 - vii. Drug addiction
 - viii. Angina pectoris
 - ix. Heart attack
 - x. Heart failure
 - xi. Choking
 - xii. Fainting
 - c. Discuss emergencies of dental origin and their treatment.
5. Describe the equipment in a dental office. ^{ICE1, ICE2, ICE4, GCA2, GCA6}
 - a. Identify the major components of a dental operating chair.
 - b. Describe the procedures in performing minor adjustments on the chair.
 - c. Identify the component parts of the dental unit.
 - d. Identify other major equipment in the dental laboratory.
 - e. Explain the use of each piece of equipment.
 - f. Demonstrate how to perform required maintenance on the dental operating unit and light.
6. Demonstrate the use of selected equipment found in a dental office. ^{ICE1, ICE2, ICE3, ICE4, GCA2, GCA6}
 - a. Perform the steps involved in the proper care of the dental operating chair.
 - b. Demonstrate the use of the various levers and switches found on the chair.
 - c. Demonstrate air and water technique to the operating field without injuring tissue or impairing the vision of the operator.
 - d. Position the evacuator tip for operating on the quadrants and for buccal, labial, and lingual approach without impairing the vision of the operator and without injuring the soft tissue.
 - e. Demonstrate the proper placement of the saliva ejector.
 - f. Demonstrate the use of sterilizers.
 - g. Position the patient comfortably in the dental chair for operating on teeth in each of the quadrants.
 - h. Adjust the operating stools for the dentist and assistant.
 - i. Demonstrate the positions of the patient, operator, and assistant during four-handed operative dentistry.
7. Explain the role of the assistant in four-handed dentistry. ^{ICE1, ICE2, GCA1, GCA2, GCA3}
 - a. Describe the role of each of the following in providing chairside dental care:
 - i. Dental assistant
 - ii. Dentist
 - b. Describe the general duties to be performed in the morning in preparation for the first patient, in preparing patient for treatment, in dismissing the patient, and the end-of-the day responsibilities.
 - c. Discuss the concept of dental assisting in four-handed dentistry technique.
 - d. Relate duties performed by the dental assistant during an oral prophylaxis.
 - e. Describe how the dental assistant anticipates the need for instruments used during an oral prophylaxis by the operator.
 - f. Demonstrate the role of the assistant in the amalgam procedure.
 - g. Demonstrate the role of the assistant in a composite procedure.
8. Demonstrate the use of hand instruments. ^{GCA2, GCA3}
 - a. Demonstrate the various techniques used in the transfer of hand instruments.
 - b. Identify the parts of cutting and non-cutting hand instruments.
 - c. Demonstrate the principal instrument grasps used in four-handed dentistry.
 - d. Demonstrate the pass-and-receive technique for four-handed dentistry.
 - e. Demonstrate manipulation of medicaments for use during dental procedures.

- f. Apply a mirror, a tongue depressor, or a retractor to the cheek for operation on the quadrants without impairing the vision of the operator and without injury or discomfort to the patient.
 - g. List the instruments and steps involved in conducting an oral examination.
 - h. Describe instruments used in restorative and operative dentistry.
9. Explain the use of rotary instruments. ^{ICE3, ICE4, GCA2, GCA6}
 - a. Assemble and disassemble the straight handpiece.
 - b. Explain the use and maintenance of the prophylaxis handpiece.
 - c. Explain the various rotary cutting instruments and methods of identification.
 - d. Explain the various sections and maintenance of the contra angle handpiece.
 - e. Discuss the reasons for using ultra speed equipment and its maintenance.
 10. Implement charting techniques. ^{GCA1, GCA2}
 - a. Describe the various types of teeth by arch, quadrant, and position.
 - b. Utilize the University Numbering System in identifying.
 - c. Describe symbols used in charting.
 - d. Classify cavities according to their location.
 - e. Chart existing restorations on both a permanent and deciduous chart.
 - f. Chart cavities and any treatment needed by the patient on both permanent and deciduous charts.
 11. Demonstrate the procedure for local anesthesia. ^{ICE3, ICE4}
 - a. Prepare anesthetic setup.
 - b. Demonstrate the dental assistant's role in administering local anesthesia.
 12. Demonstrate the amalgam procedure. ^{GCA1, GCA2, GCA3}
 - a. Define operative dentistry and its functions.
 - b. Demonstrate the steps, in sequence, of cavity preparation.
 - c. Demonstrate the steps involved in placing amalgam restorations.
 - d. Demonstrate assembly and placement of a matrix band on a typodont.
 - e. Demonstrate the steps and instruments, in sequence, used to complete an amalgam restoration.
 13. Demonstrate the composite procedure. ^{GCA1, GCA2, GCA3}
 - a. Demonstrate the uses of the various instruments used in composite resin restorations.
 - b. Demonstrate the steps, in sequence, involved in a composite resin procedure.
 14. Complete CPR-Health Care Provider with an Automated External Defibrillator (AED) ^{CODA 5-4}
 - a. Prior to preclinical laboratory exercises

Dental Assisting National Board of Certified Dental Assistant Examination Topics

Infection Control

- ICE 1
- ICE 2
- ICE 3
- ICE 4

General Chairside

- GCA 1
- GCA 2
- GCA 3
- GCA 4
- GCA 5
- GCA 6

Commission of Dental Accreditation

- CODA 5-4

Course Number and Name: **DAT 1423 Chairside Assisting II**

Description: Continuation of the study of information related to assisting at the dental chair. Emphasis on techniques utilized in performing all dental procedures at the chair with special consideration to assisting in the dental specialties.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Clinical	Contact Hours
3	2	2	0	60

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Describe oral surgery procedures. ICE1, ICE2, ICE3, ICE4, GCA1, GCA2, GCA3, GCA4, GCA5, GCA6
 - a. List the stages of surgical procedures.
 - b. Perform preoperative preparation for oral surgery.
 - c. Describe the four planes of general anesthesia.
 - d. Differentiate between analgesic and anesthetic.
 - e. State the application of N2O to dentistry.
 - f. State the necessary precautions applicable to N2O and the dental office.
 - g. List the proper equipment necessary for N2O administration in the office.
 - h. Describe the steps in N2O administration.
 - i. Discuss appropriate care and storage of nitrous and oxygen tanks.
 - j. Describe the steps involved in the removal of maxillary and mandibular teeth.
 - k. Identify the type of instruments ordinarily used in the extraction of the maxillary and mandibular teeth.
 - l. Anticipate the need for the type of instruments ordinarily used by the dentist in the extraction of maxillary and mandibular teeth.
 - m. List the steps and instruments involved in the removal of impacted teeth.
 - n. Anticipate the need for the type of instruments ordinarily used by the dentist to remove impacted teeth.
 - o. List the steps and instruments used in placing a suture.
 - p. Demonstrate the removal of a suture.
 - q. Assist with and control minor bleeding after extraction or incision.
 - r. Assist with mix, change, and remove post-extraction dressings.
 - s. List the conditions and instruments associated with a dry socket and the steps involved in treatment.
 - t. Identify the steps and instruments involved in frenectomy.
 - u. List the steps and instruments involved in the performance of an alveolectomy.
 - v. List the steps and instruments involved in a biopsy.
 - w. List the steps and instruments involved in removing a cyst.
 - x. List the major steps and instruments involved in the treatment of a jaw fracture.
 - y. State the causes, characteristics, and the stages of infection.
 - z. Give post-operative instructions to the patient.
 - aa. Provide care and storage of sterile and sterile disposable products.
2. Describe periodontal procedures. RHS1, ICE1, ICE2, ICE3, ICE4, GCA1, GCA2, GCA3, GCA4, GCA5, GCA6
 - a. Discuss normal periodontium.
 - b. List the diagnostic tools used in the evaluation of periodontal disease.
 - c. Use plaque and gingival index to record symptoms of gingivitis.
 - d. Discuss the local factors in the etiology of periodontal disease.
 - e. Explain the factors involved in an oral prophylaxis and the information that should be given to the patient as to the need for the regular oral prophylaxis.

- f. List the armamentarium needed for polishing the teeth following scaling.
 - i. Demonstrate proper technique for polishing in a preclinical setting.
 - ii. Describe pericoronitis and its treatment.
 - iii. List the steps and instruments needed in performing a gingivectomy.
 - iv. List the procedure for post-operative treatment of a gingivectomy.
 - v. Assist with mix, change, and remove periodontal surgical dressings and sedative dressings.
 - vi. Describe osseous corrective surgery.
3. Describe endodontic procedures. RHS1, ICE1, ICE2, ICE3, ICE4, GCA1, GCA2, GCA3, GCA4, GCA5, GCA6
- a. Describe the use of each item required in rubber dam application.
 - b. List the steps and instruments involved in the application of the rubber dam.
 - c. Place a rubber dam on a dentiform.
 - d. Describe the most common endodontic procedures performed in the dental office.
 - e. List traumatic injuries that may occur to teeth.
 - f. List the names and clinical manifestations of dental pulp diseases.
 - g. State the diagnostic method used in pulpal and periapical conditions.
 - h. Discuss pulp vitality testing.
 - i. Demonstrate isolation of teeth and control of saliva.
 - j. Describe the use of root canal instruments.
 - k. Discuss bacteriology as related to endodontics.
 - l. State objectives and procedures used in pulp capping and pulpotomies.
 - m. List the steps and instruments involved in root canal therapy for each phase of treatment.
 - n. List the steps and instruments used in an apicoectomy.
 - o. Describe the internal bleaching techniques.

Dental Assisting National Board of Certified Dental Assistant Examination Topics

Radiation Health and Safety

RHS 1

Infection Control

ICE 1

ICE 2

ICE 3

ICE 4

General Chairside

GCA 1

GCA 2

GCA 3

GCA 4

GCA 5

GCA 6

Course Number and Name: **DAT 1433 Chairside Assisting III**

Description: Continuation of the study of information related to assisting at the dental chair. Emphasis on techniques utilized in performing all dental procedures at the chair with special consideration to assisting in the dental specialties.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Clinical	Contact Hours
3	2	2	0	60

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Describe the procedure for fixed prosthodontics. RHS1, ICE1, ICE2, ICE3, ICE4, GCA1, GCA2, GCA3, GCA4, GCA6
 - a. Describe the importance of fixed prosthesis.
 - b. List types of crowns, bridges, types of facings, and materials used for fabrication.
 - c. List the steps involved in crown and bridge fabrication.
 - d. Make a preliminary impression.
 - e. Pour the impression to the specification of the instructor.
 - f. Given a set of poured models, separate, trim, and articulate the models.
 - g. Using a prepared model, demonstrate the use of a vacuum former.
 - h. Fabricate a temporary crown.
 - i. Discuss the manipulation of final impression materials.
 - j. Discuss the handling of a final impression following removal from the mouth.
 - k. List the steps and instruments involved in the cementation of a fixed prosthesis.
2. Describe procedures for removable prosthodontics. ICE1, ICE2, ICE3, ICE4, GCA1, GCA2, GCA3, GCA4, GCA6
 - a. List the steps involved in the preliminary impression, final impression, registration of jaw relations, try-in, and insertion of a removable appliance.
 - b. Explain the use of various armamentarium needed to accomplish steps involved in removable prostheses.
 - c. Demonstrate the ability to prepare and assist with various armamentarium needed to accomplish steps involved in complete denture prosthesis.
 - d. Describe the steps to repairing a broken appliance.
 - e. Disinfect, clean and polish an appliance.
3. Describe procedures for pedodontics. RHS1, ICE1, ICE2, ICE3, ICE4, GCA1, GCA2, GCA3, GCA4, GCA5, GCA6
 - a. Discuss pedodontics.
 - b. Discuss the primary dentition.
 - c. Discuss pedodontic practice management.
 - d. Relate behavior patterns of the child to the dental office.
 - e. Discuss and identify growth and development in stages of 1-6 years and 6-12 years.
 - f. Explain patient management techniques for handicapped and problem patients.
 - g. State the role of the parent in successful pedodontic procedures.
 - h. Discuss the role of the dental assistant in the first appointment and consultation.
 - i. State the importance of preventive dentistry for children.
 - j. Demonstrate topical fluoride applications.
 - k. Explain the various modalities of fluoride administration and the dangers and results of overdosage.
 - l. Demonstrate the use of pit and fissure sealants.
 - m. Discuss the assistant's role in operative pedodontics.
 - n. List the steps and instruments involved in stainless steel crown placement.
 - o. Explain the procedure involved in pulp therapy (pulp capping and pulpotomy).

- p. Assemble the proper armamentarium for endodontic procedures performed in pedodontics.
 - q. State the importance of prosthetics in pedodontics.
 - r. Describe the proper prosthetic procedures in the pedodontic office.
 - s. Discuss procedures used in emergency treatment for traumatized teeth.
4. Describe procedures for orthodontics. RHS1, ICE1, ICE2, ICE3, ICE4, GCA1, GCA2, GCA3, GCA4, GCA6
- a. Discuss orthodontics and the goals that orthodontists strive to achieve.
 - b. Discuss the history of orthodontics.
 - c. Discuss etiology as it pertains to orthodontics.
 - d. Define diagnosis, occlusion, and malocclusion.
 - e. State the classification of malocclusion according to Dr. Angle.
 - f. Discuss the diagnostic aids used by the orthodontist in treatment planning.
 - g. Describe the principles of tooth movement.
 - h. Describe types of orthodontic appliances used in treatment.
 - i. Identify instruments and equipment used in orthodontic treatment.
 - j. Discuss responsibilities of the patient and parent during treatment.
 - k. Describe the removal of cement after a fixed appliance is removed.

Dental Assisting National Board of Certified Dental Assistant Examination Topics

Radiation Health and Safety

RHS 1

Infection Control

ICE 1

ICE 2

ICE 3

ICE 4

General Chairside

GCA 1

GCA 2

GCA 3

GCA 4

GCA 5

GCA 6

4. Discuss auxiliary techniques in patient management for exposing radiographs. ^{RHS1, RHS 3, RHS4}
 - a. Discuss criteria involved in radiographing the mandibular and maxillary tori patient.
 - b. Discuss techniques involved in radiographing narrow and cleft palate patients.
 - c. Discuss techniques in radiographing children.
 - d. Discuss techniques in radiographing edentulous patients.
 - e. Discuss techniques used for taking x-rays on endodontic patients.
 - f. Discuss techniques in exposing radiographs on handicapped patients.
 - g. Discuss techniques used in radiographing patients with a gag reflex.
 - h. Discuss criteria used in radiographing uncooperative patients.
5. Differentiate various types of x-ray films. ^{RHS1}
 - a. Discuss the various types of dental x-ray film (both intraoral and extraoral), the use of each, and the proper care and storage of each.
 - b. Explain the speed rating of dental x-ray film by relating what determines film speed, the effect of fast speed film, and speed groups of A to F.
 - c. Identify the purposes of extraoral films.
6. Describe the techniques used in exposing intraoral radiographs. ^{RHS1, RHS4, ICE1, ICE2, ICE3, ICE4, GCA2}
 - a. Discuss the techniques used in making intraoral radiographs.
 - b. Describe the sensor/film holders used and the positioning of the patient and of the film.
 - c. Demonstrate the positioning of the tubehead and the PID for each technique.
 - d. Demonstrate the vertical and horizontal angulation needed for each technique.
 - e. Identify the purposes and uses of bitewing films.
 - f. Demonstrate the positioning of the bitewing film, including vertical and horizontal angulation.
 - g. Demonstrate the procedure for positioning, exposing, and processing a full mouth series of radiographs.
 - h. Identify unacceptable radiographs, the errors and their causes, and appropriate corrective action.
 - i. Describe the need and procedure for exposing occlusal radiographs.
 - j. Prepare operatory using infection control techniques.
 - k. Expose film or digital sensors following infection control techniques.
7. Demonstrate the processing of dental film. ^{RHS1, RHS2, RHS4, ICE1, ICE2, ICE3, ICE4, GCA2}
 - a. Describe the composition properties of an x-ray film.
 - b. Discuss the essential components of a well-equipped darkroom.
 - c. Discuss the chemistry of development, fixation, washing, and drying of exposed radiographs.
 - d. Explain the purpose of each chemical in the processing solutions.
 - e. Operate the darkroom apparatus and equipment by producing an acceptable processed film.
 - f. List the times and temperatures for each of the solutions in manually processing an x-ray film.
 - g. Clean and replenish the processing equipment and solutions.
 - h. Identify processing errors and the corrective procedures for each.
 - i. Describe the procedure for the use of an automatic processor.
 - j. Describe the procedure of quick processing.
 - k. Describe the procedure for duplicating radiographs.
 - l. Demonstrate infection control procedures in the darkroom.
8. Describe the techniques in capturing digital images. ^{RHS1, RHS4, ICE1, ICE2, ICE3, ICE4, GCA2}
 - a. Demonstrate the placement, exposure, and mounting of digital images with the use of appropriate computer software and equipment.
 - b. Discuss the use of digital radiography in a dental setting.
 - c. Differentiate between the various digital imaging techniques.
9. Identify normal anatomical landmarks used for mounting radiographs. ^{RHS1}
 - a. Identify maxillary and mandibular anatomical landmarks on a full mouth series of radiographs.
 - b. Identify maxillary and mandibular anatomical landmarks on a panoramic radiograph.
 - c. Mount radiographs in proper sequence using a full mouth series mount.

10. Describe the techniques used in extraoral exposures. RHS1, RHS3, RHS4, ICE1, ICE2, ICE3, ICE4, GCA2
- a. Describe the technique for positioning, exposing, and processing the most common extraoral exposures.
 - b. Demonstrate the operation of the panoramic machine.
 - c. Demonstrate the technique for positioning, exposing, and processing panoramic exposures on a patient.
 - d. Discuss the settings for the panoramic machine on different types of patients.
 - e. Prepare operatory using proper infection control techniques.
 - f. Obtain a panoramic exposure following proper infection control techniques.

Dental Assisting National Board of Certified Dental Assistant Examination Topics

Radiation Health and Safety

- RHS 1
- RHS 2
- RHS 3
- RHS 4

Infection Control

- ICE 1
- ICE 2
- ICE 3
- ICE 4

General Chairside

- GCA 2

ICE 3
ICE 4

General Chairside

GCA 1
GCA 5
GCA 6

Course Number and Name: **DAT 1612 Dental Health Education**

Description: Study of the nutritional needs of the body. Emphasis on nutritional requirements for maintaining good oral hygiene. Comprehensive study of the dental assistant’s responsibilities in patient education as related to good oral health.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Clinical	Contact Hours
2	2	0	0	30

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Discuss preventive dental procedures. ICE2, ICE4, GCA1, GCA2, GCA4
 - a. Describe the philosophy of preventive dentistry as it relates to dental and community education.
 - b. Define special dental health needs due to physical status, age, and other factors.
 - c. Define plaque and its relationship to caries and periodontal disease.
 - d. Discuss guidelines for purchasing a new toothbrush and the use of automatic toothbrushes.
 - e. Demonstrate the various methods of tooth brushing and their indications.
 - f. Demonstrate the use of dental floss.
 - g. Discuss the forms of dentifrices and the various types of dentifrices available to the public.
 - h. List various oral hygiene aids and the use of each.
 - i. Provide oral hygiene instructions (OHI) that are suitable for the average patient.
 - j. Prepare a handout to teach the average patient how to maintain good oral hygiene.
 - k. Describe various audiovisual aids for patient education.
 - l. Review the order of procedures for a prophylaxis.
 - m. List the sources of fluoride and the benefits of fluoride when added to the community water supply.
 - n. Explain the methods of topical application of fluoride.
 - o. Prepare a research project on an approved topic in dental health education.
2. Discuss the role of nutrition in dental health. GCA1, GCA2, GCA4
 - a. State the relationship between diet and nutrition with good dental health.
 - b. Define nutrition, nutrients, diet, calorie, malnutrition, and metabolism.
 - c. List factors that influence food habits.
 - d. Name the groups that make up My Pyramid, giving an example of food from each group and the essential nutrient each group provides.
 - e. List the six essential nutrients.
 - f. Discuss the digestion, utilization, and functions of protein.
 - g. Discuss the digestion, utilization, and functions of carbohydrates.
 - h. Describe to the patient the role that carbohydrates play in dental disease.
 - i. Prepare a food diary.
 - j. Discuss the digestion, utilization, and functions of fats.
 - k. Discuss the digestion, utilization, and functions of water.
 - l. Discuss the digestion, utilization, and functions of minerals.
 - m. Discuss the digestion, utilization, and functions of vitamins.
 - n. Discuss how nutritional deficiencies are reflected in the oral cavity.
 - o. Complete a dietary evaluation.
 - p. Discuss oral hygiene instructions
 - q. Child with rampant caries

- ii. Surgery patient
- iii. Jaw fracture patient
- iv. TMJ patient
- v. Periodontal patient
- r. Discuss the diet and nutrition of special situation patients, including the following situations:
 - i. Caries
 - ii. Periodontal patient
 - iii. Pregnancy and lactation
 - iv. Pedodontic
 - v. Aging patient
 - vi. Systemic disease
 - vii. Cancer patient

Dental Assisting National Board of Certified Dental Assistant Examination Topics

Infection Control

ICE 2

ICE 4

General Chairside

GCA 1

GCA 2

GCA 4

Course Number and Name: **DAT 1714 Practice Management**

Description: Comprehensive study of the dental office business procedures. Topics covered: patient contact, patient records, insurance, financial records, telephone usage, office management, and professional ethics.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Clinical	Contact Hours
4	3	2	0	75

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Describe duties of the dental office personnel. ^{GCA6}
 - a. List the principal duties of the patient care providers including the dentist, the dental assistant, and the dental hygienist.
 - b. List the duties of other office personnel including the lab technician and clerical support staff.
2. Discuss telephone etiquette. ^{GCA6}
 - a. Describe items needed for good telephone technique.
 - b. Demonstrate the ability to handle incoming telephone calls.
 - c. Discuss how to schedule appointments, change appointments, confirm appointments, handle broken appointments, and make emergency appointments.
 - d. Discuss the professional responsibility of the office to maintain an accurate recall system.
3. Describe various record keeping procedures. ^{GCA1, GCA6}
 - a. Complete a patient registration form.
 - b. State the importance of a medical and dental history.
 - c. Discuss treatment charts, charting symbols, and clinical notes.
 - d. Discuss the different methods of filing patient and business records.
 - e. Discuss the basic rules of filing.
 - f. Discuss the importance of patient confidentiality and the HIPAA guidelines.
 - g. Discuss the transition from a conventional business office to a paperless environment.
4. Prepare a dental insurance form. ^{GCA6}
 - a. Define dental insurance terms and coverage.
 - b. Complete an insurance form (attending dentist statement).
 - c. Discuss current trends involving third party payors (managed care, HMO, PPO, and others) and how these may affect the future of dentistry.
5. Describe bookkeeping procedures in a dental office. ^{GCA6}
 - a. Discuss different bookkeeping systems.
 - b. Describe methods of recording and charging payments.
 - c. Discuss knowledge of banking by writing a check, preparing a bank deposit, and reconciling a bank statement.
 - d. Discuss what a statement is and when statements are prepared.
 - e. Discuss the different methods of collection and when each method is indicated.
 - f. Define overhead, gross income, and net income.
 - g. Describe an inventory system and the terms associated with supplies and inventory.
 - h. Define the terms associated with disbursements (COD, petty cash, and others).
 - i. Define terms related to payroll withholding.
 - j. Demonstrate how to compute payroll.
 - k. Explain procedures for remitting government taxes.
6. Discuss general office procedures. ^{GCA6}

- a. Explain the procedure to handle incoming and outgoing mail.
 - b. Describe the various business letter forms.
 - c. Discuss general office correspondence.
 - d. Describe the purpose of an office manual and its content.
7. Utilize dental-related computer software. ^{GCA6}
- a. State the uses of the computer in the dental office.
 - b. Demonstrate the use of dental practice management computer software, including:
 - i. Appointments
 - ii. Billing
 - iii. Generating insurance forms
 - iv. Patient records
 - v. General office correspondence
8. Describe employability skills. ^{GCA6}
- a. Discuss the importance of professional work ethics to the employee and the office.
 - b. Research job opportunities for dental assistants.
 - c. List important factors for seeking employment.
 - d. Discuss what a resume is, what information should be included, and prepare one.
 - e. Explain the purpose of the cover letter and how to prepare one.
 - f. Discuss the importance of proper attire for an interview.
 - g. Discuss the importance of the interview.
 - h. List frequently asked questions during an interview.
 - i. Discuss ways to adjust to the job and new environment quickly and smoothly.
 - j. Discuss lifelong learning in the field.
 - k. Discuss the components of a letter of resignation.
 - l. List some do's and don'ts for employment in the dental office.

Dental Assisting National Board of Certified Dental Assistant Examination Topics

General Chairside

GCA 1

GCA 6

Course Number and Name: **DAT 1815 Clinical Experience I**

Description: Supervised clinical experience in an authorized dental clinic with assistance of dental team members.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Clinical	Contact Hours
5	1	0	12	195

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Correlate skills from areas with knowledge obtained from didactic and preclinical experiences. RHS1, RHS2, RHS3, RHS4, ICE1, ICE2, ICE3, ICE4, GCA1, GCA2, GCA3, GCA4, GCA5, GCA6
 - a. Apply the knowledge learned in the formal academic program to the functioning dental practice.
 - b. Perform those chairside responsibilities taught in the formal program to the satisfaction of the cooperating dentist and the supervising instructor.
 - c. Expose, process, and mount dental x-rays according to the standards acceptable to the supervising dentist.
 - d. Perform tasks in the dental laboratory, such as pouring up and trimming study models, and other items.
 - e. Record clinical experiences in a journal.
2. Discuss clinical activities and national boards.
 - a. Prepare case presentations.
 - b. Present case presentations.
 - c. Discuss sections of the dental assisting national board exam.
 - d. Discuss test taking techniques.

Dental Assisting National Board of Certified Dental Assistant Examination Topics

Radiation Health and Safety

- RHS 1
- RHS 2
- RHS 3
- RHS 4

Infection Control

- ICE 1
- ICE 2
- ICE 3
- ICE 4

General Chairside

- GCA 1
- GCA 2
- GCA 3
- GCA 4
- GCA 5
- GCA 6

Course Number and Name: **DAT 1822 Clinical Experience II**

Description: Continuation of supervised clinical experience in an authorized dental clinic with minimal assistance from dental team members.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Clinical	Contact Hours
2	0	0	6	90

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Correlate skills from areas with knowledge obtained from didactic and preclinical experiences involving patient care. ^{RHS1, RHS2, RHS3, RHS4, ICE1, ICE2, ICE3, ICE4, GCA1, GCA2, GCA3, GCA4, GCA5, GCA6}
 - a. Demonstrate the ability to successfully work with the patient and the dental health team according to standards established by the supervising instructor.
 - b. Demonstrate the ability to successfully work with the dental team in the cooperating dental office according to the established standards.
 - c. Perform those chairside responsibilities taught in the formal program to the satisfaction of the cooperating dentist and the supervising instructor.
 - d. When given the responsibility, expose, process, and mount dental x-rays according to the standards acceptable to the supervising dentist.
2. Correlate skills from areas with knowledge obtained from didactic and preclinical experiences involving non-patient care. ^{GCA2, GCA3}
 - a. Perform tasks in the dental laboratory, such as pouring up and trimming study models, custom made trays, and other items.
 - b. Record clinical experiences in a journal.

Dental Assisting National Board Certified Dental Assistant Examination Topics

Radiation Health and Safety

- RHS 1
- RHS 2
- RHS 3
- RHS 4

Infection Control

- ICE 1
- ICE 2
- ICE 3
- ICE 4

General Chairside

- GCA 1
- GCA 2
- GCA 3
- GCA 4
- GCA 5
- GCA 6

Course Number and Name: **DAT 1932 Clinical Practicum I**

Description: Supervised clinical experience in an authorized dental clinic with assistance of dental team members.

Hour Breakdown:

Semester Credit Hours	Lecture	Lab	Clinical	Contact Hours
2	0	0	6	90

Prerequisite: Instructor Approved

Student Learning Outcomes:

1. Correlate skills from areas with knowledge obtained from didactic and preclinical experiences. RHS1, RHS2, RHS3, RHS4, ICE1, ICE2, ICE3, ICE4, GCA1, GCA2, GCA3, GCA4, GCA5, GCA6
 - a. Apply the knowledge learned in the formal academic program to the functioning dental practice.
 - b. Perform those chairside responsibilities taught in the formal program to the satisfaction of the cooperating dentist and the supervising instructor.
 - c. Expose, process, and mount dental x-rays according to the standards acceptable to the supervising dentist.
 - d. Perform tasks in the dental laboratory, such as pouring up and trimming study models, and other items.
 - e. Record clinical experiences in a journal.
2. Discuss clinical activities and national boards.
 - a. Prepare case presentations.
 - b. Present case presentations.
 - c. Discuss sections of the dental assisting national board exam.
 - d. Discuss test taking techniques.

Dental Assisting National Board of Certified Dental Assistant Examination Topics

Radiation Health and Safety

- RHS 1
- RHS 2
- RHS 3
- RHS 4

Infection Control

- ICE 1
- ICE 2
- ICE 3
- ICE 4

General Chairside

- GCA 1
- GCA 2
- GCA 3
- GCA 4
- GCA 5
- GCA 6

Appendix A: Recommended Tools and Equipment Dental Assisting

Capitalized Items

1. Autoclave, Steam (1 per program)
2. AV Cart, lockable
3. Cabinet, Mobile (1 per operator)
4. Central Evacuation System (1 per site)
5. Chair, Dental (1 per operator)
6. Compressor, Air (1 per site)
7. Dental Unit (1 per operator)
8. Eye Wash Station
9. Handpiece, Slow Speed (1 per operator)
10. Handpiece, Slow Speed, Lab, Air Driven (1 per 4 students)
11. Handpiece, High Speed (1 per operator)
12. Light Curing Unit (1 per operator)
13. Light Dental (1 per operator)
14. Projector (1 per program)
15. Mannequin Head, Chrome (Billy-Bob) (1 per operator)
16. Mannequin, Radiographic (Dexter) (1 per x-ray operator)
17. Mixer, Plaster (1 per program)
18. OSHA Compliance System (1 per program)
19. Processor, Automatic Film (1 per program)
20. Stool, Assistant's (1 per operator)
21. TV
22. TV Stand
23. Ultrasonic Cleaner (2 per program)
24. X-ray Machine, Intraoral (1 per x-ray operator)
25. X-ray Digital Sensors, Computer, and Software (1 per x-ray operator) or 1 indirect system with computer and software
26. X-ray Machine, Panoramic (1 per program)
27. Computer with CD ROM (1 per 4 students)
28. Printer, Laser

Non-Capitalized Items

1. Amalgam Instruments – complete tray setup
2. Bowls, Rubber mixing
3. Cement Spatulas (2 per student)
4. Composite Instruments (each) (12 per operator)
5. Endodontic Instruments
6. Fire blanket
7. Fire extinguisher
8. Impression Trays, metal rim, assorted sizes (1 pr. per size per operator) Knife, Lab (1 per student)
9. Orthodontic Instruments
10. Pedodontic Instruments
11. Periodontal Instruments
12. Polyvinylsiloxane cartridge delivery system
13. Prosthodontic Instruments
14. Rubber Dam, Rubber Dam Instrumentation (1 per operator & 1 per student)
15. Safelight GBX (1 per program)
16. Sharp's Containers (1 per operator, 1 per classroom, & 1 per lab)
17. Slabs, Glass Mixing (1 per student & 1 per operator)
18. Spatula, Alginate (1 per student & 1 per operator)
19. Spatulas, Plaster (1 per student & 1 per operator)

20. Sphygmomanometer (1-2 per student & 1 per operator)
21. Splash Hood with Light Socket/Lucite Shield (2 per lathe)
22. Stethoscope (1 per 2 students)
23. Stethoscope for Teaching (1 per program)
24. Surgical Instruments
25. Syringe, Aspirating (2 per operator)
26. Thermometer, Digital (1 per operator)
27. Amalgamator (1 per 3 students)
28. Apron, Lead (1 per operator)
29. Apron, Lead, Thyroid Collar (1 per operator)
30. Biological Monitoring System (1 per program)
31. Cart, Mobile Supply (1 per program)
32. Chair, Operator (1 per operator)
33. Dentoform, Assorted (1 per 2 students)
34. Developer, Chairside Instant (1 per program)
35. Duplicator, Film (1 per program)
36. Human Skull Model (1 per 3 students)
37. Instrument Cabinets, Dental (1 per program)
38. Lathe (1 per 3 students)
39. Processing Tanks (1 per program)
40. Pulp Vitalometer (1 per program)
41. Trimmer, Model (1 per sink)
42. Vacuum Adapter (1 per program)
43. Vibrator, Mixing (1 per 3 students)
44. View Boxes, Film (1 per student)
45. Surge Protector (1 per 2 computers)

Other equipment items can be added when deemed appropriate by the community college industry craft committee or by industry/business training requirements.

Recommended Instructional Aids

It is recommended that instructors have access to the following items:

1. Articulator, Full Mouth (1 per program)
2. Emergency Medical Kit (1 per program)
3. Mercury Spill Absorbent Kit (1 per program)
4. Presentation remote (1 per program)
5. Document camera (1 per program)
6. Training models

Appendix B: Curriculum Definitions and Terms

- Course Name – A common name that will be used by all community colleges in reporting students
- Course Abbreviation – A common abbreviation that will be used by all community and junior colleges in reporting students
- Classification – Courses may be classified as the following:
 - Career Certificate Required Courses –when a student completes 30 hours.
 - Technical Certificate Required Course – when a student completes 45 hours.
 - Technical Electives – optional courses ranging from 3 to 9 hours.
- Description – A short narrative that includes the major purpose(s) of the course
- Prerequisites – A listing of any courses that must be taken prior to or on enrollment in the course
- Corequisites – A listing of courses that may be taken while enrolled in the course
- Student Learning Outcomes – A listing of the student outcomes (major concepts and performances) that will enable students to demonstrate mastery of these competencies

The following guidelines were used in developing the program(s) in this document and should be considered in compiling and revising course syllabi and daily lesson plans at the local level:

- The content of the courses in this document reflects approximately 75% of the time allocated to each course. The remaining 25% of each course should be developed at the local district level and may reflect the following:
 - Additional competencies and objectives within the course related to topics not found in the state framework, including activities related to specific needs of industries in the community college district
 - Activities that develop a higher level of mastery on the existing competencies and suggested objectives
 - Activities and instruction related to new technologies and concepts that were not prevalent at the time the current framework was developed or revised
 - Activities that include integration of academic and career–technical skills and course work, school-to-work transition activities, and articulation of secondary and postsecondary career–technical programs
 - Individualized learning activities, including work-site learning activities, to better prepare individuals in the courses for their chosen occupational areas
- Sequencing of the course within a program is left to the discretion of the local college. Naturally, foundation courses related to topics such as safety, tool and equipment usage, and other fundamental skills should be taught first. Other courses related to specific skill areas and related academics, however, may be sequenced to take advantage of seasonal and climatic conditions, resources located outside of the school, and other factors. Programs that offer an Associate of Applied Science Degree must include all of the required Career Certificate courses, Technical Certificate courses **AND** a minimum of 15 semester hours of General Education Core Courses. The courses in the General Education Core may be spaced out over the entire length of the program so that students complete some academic and Career Technical courses each semester. Each community college specifies the actual courses that are required to meet the General Education Core Requirements for the Associate of Applied Science Degree at their college.
- In order to provide flexibility within the districts, individual courses within a framework may be customized by doing the following:
 - Adding new student learning outcomes to complement the existing competencies and suggested objectives in the program framework
 - Revising or extending the student learning outcomes
 - Adjusting the semester credit hours of a course to be up 1 hour or down 1 hour (after informing the Mississippi Community College Board [MCCB] of the change)

Appendix C: Course Crosswalk

COURSE CROSSWALK Dental Assisting Technology (CIP: 51.0601)					
<i>Note: Courses that have been added or changed in the 2024 curriculum are highlighted.</i>					
Previous			Current		
2012 MS Curriculum Framework			2018 MS Curriculum Framework		
Course Number	Course Title	Hours	Course Number	Course Title	Hours
DAT 1111	Dental Orientation	1	DAT 1111	Dental Orientation	1
DAT 1214	Dental Assisting Materials	4	DAT 1214	Dental Assisting Materials	4
DAT 1313	Dental Science I	3	DAT 1313	Dental Science I	3
DAT 1415	Chairside Assisting I	5	DAT 1415	Chairside Assisting I	5
DAT 1513	Dental Radiology I	3	DAT 1513	Dental Radiology I	3
DAT 1323	Dental Science II	3	DAT 1323	Dental Science II	3
DAT 1423	Chairside Assisting II	3	DAT 1423	Chairside Assisting II	3
DAT 1522	Dental Radiology II	2	DAT 1522	Dental Radiology II	2
DAT 1612	Dental Health Education	2	DAT 1612	Dental Health Education	2
DAT 1714	Practice Management	4	DAT 1714	Practice Management	4
DAT 1815	Clinical Experience I	5	DAT 1815	Clinical Experience I	5
DAT 1822	Clinical Experience II	2	DAT 1822	Clinical Experience II	2
DAT 1433	Chairside Assisting III	3	DAT 1433	Chairside Assisting III	3
			DAT 1932	Clinical Practicum I	2
			DAT 1943	Clinical Practicum II	3
			DAT 1952	Clinical Practicum III	2

COURSE CROSSWALK

Dental Assisting Technology (CIP: 51.0601)

Note: Courses that have been added or changed in the 2024 curriculum are highlighted.

Revised					
2024 MS Curriculum Framework					
Course Number	Course Title	Hours	Course Number	Course Title	Hours
DAT 1111	Dental Orientation	1			
DAT 1214	Dental Assisting Materials	4			
DAT 1313	Dental Science I	3			
DAT 1415	Chairside Assisting I	5			
DAT 1513	Dental Radiology I	3			
DAT 1323	Dental Science II	3			
DAT 1423	Chairside Assisting II	3			
DAT 1522	Dental Radiology II	2			
DAT 1612	Dental Health Education	2			
DAT 1714	Practice Management	4			
DAT 1815	Clinical Experience I	5			
DAT 1822	Clinical Experience II	2			
DAT 1433	Chairside Assisting III	3			
DAT 1932	Clinical Practicum I	2			
DAT 1943	Clinical Practicum II	3			
DAT 1952	Clinical Practicum III	2			

Appendix D: Recommended Textbook List

Recommended Dental Assisting Technology Text Book List CIP: 51.0601- Dental Assisting/Assistant		
Book Title	Author (s)	ISBN
Modern Dental Assisting/Modern Dental Assisting Workbook 14 th Ed.	Robinson	9780323824408
Dental Radiography: Principles and Techniques 6 th Ed.	Joan M. Iannucci Laura Jansen Howerton	9780323695503
The Administrative Dental Assistant 5 th Edition	Linda J. Gaylor	9780323294447
Student Workbook for The Administrative Dental Assistant, 5 th Ed.	Linda J. Gaylor	9780323680554
Student Workbook for The Administrative Dental Assistant - Revised Reprint 5th Edition	Linda J. Gaylor	9780323875752
Practice Management for the Dental Team 7 th Ed.	Betty Ladley Finkbeiner Charles Allen Finkbeiner	9780323065368

***Or most recent editions**