

Acknowledgments

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Standards in this document are based on information from the following organizations:

Dental Assisting National Board Certified Dental Assistant Examination Topics

Commission on Dental Accreditation. (2010). *Accreditation standards for dental hygiene education programs*.
Chicago, IL: American Dental Association.

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Related Academic Standards

CTB/McGraw-Hill LLC. (2005). *Tests of adult basic
education, Forms 9 and 10*. Monterey, CA: Author.

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Preface

Dental Hygiene Research Synopsis

Articles, books, Web sites, and other materials listed at the end of each course were considered during the revision process. *ADHA Journal of Dental Hygiene* and the *Commission on Dental Accreditation* were especially useful in providing insight into trends and issues in the field. These references are suggested for use by instructors and students during the study of the topics outlined.

Industry advisory team members from colleges throughout the state 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 included initiative, punctuality, great personality, and people skills, as well as dependability and team cooperation. Occupational-specific skills stated included instrumentation and patient education. Safety practices emphasized included infection control and universal precautions.

Instructors from colleges throughout the state were also asked to give input on changes to be made to the curriculum framework. Changes suggested for the curriculum included increasing both clinical and instruction hours as well as adding more digital components to the curriculum.

Curriculum

The following national standards were referenced in each course of the curriculum:

- CTB/McGraw-Hill LLC *Tests of Adult Basic Education, Forms 9 and 10 Academic Standards*
- *21st Century Skills*
- *2010 Accreditation Standards for Dental Hygiene Education Programs*

Needs of the Future Workforce

Dental Hygienist is among the fastest growing occupations. Job prospects will be good for most graduates, but competition will be keen in some areas. Older dentists, who have been less likely to employ dental hygienists, are leaving the occupation and will be replaced by recent graduates, who are more likely to employ one or more hygienists. In addition, as dentists' workloads increase, they are expected to hire more hygienists to perform preventive dental care, such as cleaning, so that they may devote their own time to more complex procedures. (US Bureau of Labor Statistics, 2010). The occupation is projected to grow 30 percent in Mississippi and 37 percent in the United States (EMSI, 2011).

Region	2010 Jobs	2020 Jobs	Change	% Change	Openings	2010 Median Hourly Earnings
Regional Total	1,273	1,657	384	30%	653	\$25.25
National Total	175,407	223,183	47,776	27%	84,083	\$32.36

○ 3 semester credit hours

Social/Behavioral Science Elective

It is recommended that courses in the academic core be spaced out over the entire length of the program, so that students complete some academic and career–technical courses each semester. Each community or junior college has the discretion to select the actual courses that are required to meet this academic core requirement.

- Career–technical elective courses have been included to allow community colleges and students to customize programs to meet the needs of industries and employers in their area.

In order to provide flexibility within the districts, individual courses within a framework may be customized by doing the following:

- Adding new competencies and suggested objectives
- Revising or extending the suggested objectives for individual competencies
- 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)

In addition, the curriculum framework as a whole may be customized by doing the following:

- Resequencing courses within the suggested course sequence reflecting the new assessment format
- Developing and adding a new course that meets specific needs of industries and other clients in the community or junior college district (with MCCB approval)
- Utilizing the career technical elective options in many of the curricula to customize programs

An additional 3 hour elective should be selected from the following list:

English Composition II (ENG 1113)

Introduction to Chemistry (CHE 1113)

General Chemistry I (CHE 1213)

General Chemistry Laboratory I (CHE 1211)

Introduction to Computer Concepts (CSC 1113)

Fundamentals of Microcomputer Application (CPT 1113)

Industry standards are taken from the Commission on Dental Accreditation's Accreditation Standards for Dental Hygiene Education Programs (2011).

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17 sch

* Students who lack entry level skills in math, English, science, etc. will be provided related studies.

** Introduction to Sociology I (SOC 2113) is required by national standards.

APPROVED ELECTIVES FOR DENTAL HYGIENE TECHNOLOGY:

English Composition II (ENG 1123)

Chemistry Survey (CHE 1113)

General Chemistry I (CHE 1213)

General Chemistry Laboratory I (CHE 1211)

Introduction to Computer Concepts (CSC 1113)

Fundamentals of Microcomputer Applications (CPT 1113)

- e. Perform an assessment of vital signs on a patient.
 - f. Access intraoral and extraoral conditions using palpation and visual detections for abnormalities.
 - g. Document intraoral and extraoral clinical manifestations on charts.
 - h. Discuss emergency procedures given specific emergency situations.
 - i. Formulate an appropriate, sequential Dental Hygiene Treatment Plan for individuals with specific needs based on the results of data gathered during assessment procedures.
 - j. Demonstrate use of examination and scaling instruments.
 - k. Practice manual and motor-driven polishing procedures.
4. Recognize the basic etiology of dental disease, related treatment, and preventive measures.
DH3, DH4
- a. Explain basic constituents and the appearance of plaque and dental calculus, and its effect on the dental health of the client.
 - b. Identify types, causes, and possibilities for removal of specific stains and accretions.
 - c. Apply the concept of selective polishing procedures for all clients.
 - d. Apply procedures necessary for the dental prophylaxis polishing techniques (materials, methods, and equipment).
 - e. Counsel patients on available sources of fluoride for use as a dental disease preventive.
 - f. Demonstrate all topical fluoride techniques.

STANDARDS

Standards Based on the Commission on Dental Accreditation

- DH1 General education content including oral and written communications, psychology, and sociology.
- DH3 Dental sciences including
- DH3A tooth morphology;
 - DH3B head, neck, and oral anatomy;
 - DH3C oral embryology and histology;
 - DH3D oral pathology;
 - DH3E radiography;
 - DH3F periodontology;
 - DH3G pain management; and
 - DH3H dental materials.
- DH4 Dental hygiene science including
- DH4A oral health education and preventive counseling,
 - DH4B health promotion,
 - DH4C patient management,
 - DH4D clinical dental hygiene,
 - DH4E provision of services for and management of patients with special needs,
 - DH4F community dental/oral health,
 - DH4G medical and dental emergencies including basic life support,
 - DH4H legal and ethical aspects of dental hygiene practice,
 - DH4I infection and hazard control management, and

- CS12 Flexibility and Adaptability
- CS13 Initiative and Self-Direction
- CS14 Social and Cross-Cultural Skills
- CS15 Productivity and Accountability
- CS16 Leadership and Responsibility

SUGGESTED REFERENCES

Nield-Gehrig, J.S. (2007). *Fundamentals of periodontal instrumentation and advanced root instrumentation* (6th ed.). Philadelphia, PA: Lippincott, Williams, & Wilkins.

Wilkins, E.M. (2009). *Clinical practice of the dental hygienist* (10th ed.). Philadelphia, PA: Lippincott, Williams, & Wilkins.

Course Name: Dental Anatomy

Course Abbreviation: DHT 1212

Classification: Career-Technical Core

Description: A study of the morphological characteristics of the teeth and supporting structures.
(2 sch: 2 hr. lecture)

Prerequisite: None

Competencies and Suggested Objectives
1. Explain dentition. ^{DH3A} <ol style="list-style-type: none">Describe dentition.Describe the physiological form and function of the teeth.Differentiate between normal occlusion and malocclusion in relation to intercuspating and interdigitation during both centric relationships and excursions of the mandible.Identify the individual tooth, deciduous and permanent, in a clinical environment by identifying natural specimens in laboratory exercises.
2. Explain related structures. ^{DH3A} <ol style="list-style-type: none">Describe related structures of the dentition with correct terminology and nomenclature.Utilize basic knowledge of tooth tissues, the exfoliation and eruption of teeth, tooth contact and alignment in the arch, and tooth relationship to the supporting structures.

STANDARDS

Standards Based on the Commission on Dental Accreditation

DH3 Dental sciences content including
DH3A tooth morphology.

Related Academic Standards

- R1 Interpret Graphic Information (forms, maps, reference sources)
- R2 Words in Context (same and opposite meaning)
- R3 Recall Information (details, sequence)
- R4 Construct Meaning (main idea, summary/paraphrase, compare/contrast, cause/effect)
- R5 Evaluate/Extend Meaning (fact/opinion, predict outcomes, point of view)
- M1 Addition of Whole Numbers (no regrouping, regrouping)
- M2 Subtraction of Whole Numbers (no regrouping, regrouping)
- M3 Multiplication of Whole Numbers (no regrouping, regrouping)
- M4 Division of Whole Numbers (no remainder, remainder)
- M5 Decimals (addition, subtraction, multiplication, division)
- M6 Fractions (addition, subtraction, multiplication, division)
- M7 Integers (addition, subtraction, multiplication, division)

Course Name: Head and Neck Anatomy

Course Abbreviation: DHT 1222

Classification: Career-Technical Core

Description: A detailed study of skeletal, muscular, vascular, and neural features of the face, head, and neck. (2 sch: 2 hr. lecture)

Prerequisite: None

Competencies and Suggested Objectives
<ol style="list-style-type: none"> 1. Explain the skeletal features of the face, head, and neck. <ol style="list-style-type: none"> a. Identify, by their position and relationship to one another, the bones which make up the head, spine, face, and neck. b. Identify the sutures, openings, foramina, and canals relating to the bones that make up the head, spine, face, and neck.
<ol style="list-style-type: none"> 2. Explain the muscular, vascular, and neural features of the face, head, and neck. <ol style="list-style-type: none"> a. Identify the location and actions of the muscles of mastication, the hyoid muscles, and the sternocleidomastoid muscles. b. Trace the blood supply to and from structures in the head and neck, the nerve supply, and the lymphatic drainage from these structures. c. Identify the structures relating to the temporomandibular joint, the salivary system, the nasal cavity, and the paranasal sinuses.

STANDARDS

Standards Based on the Commission on Dental Accreditation

DH3B Dental sciences content must include head, neck and oral anatomy.

Related Academic Standards

- R1 Interpret Graphic Information (forms, maps, reference sources)
- R2 Words in Context (same and opposite meaning)
- R3 Recall Information (details, sequence)
- R4 Construct Meaning (main idea, summary/paraphrase, compare/contrast, cause/effect)
- R5 Evaluate/Extend Meaning (fact/opinion, predict outcomes, point of view)
- M1 Addition of Whole Numbers (no regrouping, regrouping)
- M2 Subtraction of Whole Numbers (no regrouping, regrouping)
- M3 Multiplication of Whole Numbers (no regrouping, regrouping)
- M4 Division of Whole Numbers (no remainder, remainder)
- M5 Decimals (addition, subtraction, multiplication, division)
- M6 Fractions (addition, subtraction, multiplication, division)
- M7 Integers (addition, subtraction, multiplication, division)

Fehrenbach, M. J., & Herring, S. W. (2006). *Illustrated anatomy of the head and neck* (3rd ed.). Philadelphia, PA: Saunders.

- CS9 Information Literacy
- CS10 Media Literacy
- CS11 ICT Literacy
- CS12 Flexibility and Adaptability
- CS13 Initiative and Self-Direction
- CS14 Social and Cross-Cultural Skills
- CS16 Leadership and Responsibility
- CS15 Productivity and Accountability

SUGGESTED REFERENCES

- Bath-Balogh, M., & Fehrenbach, M. J. (2010). *Illustrated dental embryology, histology, and anatomy* (3rd ed.). Philadelphia, PA: Saunders.
- Brand, R.W. & Isselhard, D.E. (2003). *Anatomy of orofacial structures* (7th ed.). St. Louis, MO: Mosby.

SUGGESTED REFERENCES

- Frommer, H. H. (2010). *Radiology for the dental professional* (9th ed.). Philadelphia, PA: Mosby.
- Haring, J. I., & Lind, L. J. (1993). *Radiographic interpretation for the dental hygienist*. Philadelphia, PA: WB Saunders.
- Haring, J. I., & Jansen, L. (2011). *Dental radiography principles and techniques* (4th ed.). Philadelphia, PA: WB Saunders.
- Iannucci, J.M. & Howerton, L.J. (2011). *Dental radiography: Principles and techniques* (4th ed.). Philadelphia, PA: Saunders.
- Thomson, E.M. & Johnson, O. N. (2011). *Essentials of dental radiography for dental assistants and hygienists* (9th ed.). Upper Saddle River, NJ: Prentice Hall.

- CS9 Information Literacy
- CS10 Media Literacy
- CS11 ICT Literacy
- CS12 Flexibility and Adaptability
- CS13 Initiative and Self-Direction
- CS14 Social and Cross-Cultural Skills
- CS16 Leadership and Responsibility
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SUGGESTED REFERENCES

References listed in the Recommended Tool and Equipment section.

Course Name: Periodontics

Course Abbreviation: DHT 1512

Classification: Career-Technical Core

Description: An in-depth study of the supporting structures of the teeth is covered in this course. Also included is a clinical and theoretical understanding of their conditions in good health as well as their reaction to bacterial invasion in disease of varying etiology. The theory of clinical application to the management of the advanced periodontal patient to maintain a healthy and functional dental prosthesis is also studied. (2 sch: 2 hr. lecture)

Prerequisite: Oral Histology and Embryology (DHT 1232) and Dental Anatomy (DHT 1212)

Competencies and Suggested Objectives	
1.	Describe the supporting structures of the teeth. <ol style="list-style-type: none"> Identify the gross and microscopic structure, physiology, and function of the healthy periodontium as an entity and in relation to the mouth and body as a whole. Discuss the gross and microscopic structure, physiology, and function of the healthy periodontium as an entity and in relation to the mouth and body as a whole.
2.	Relate the clinical and theoretical understanding of periodontic disease. <ol style="list-style-type: none"> Describe the etiology of periodontal disease as related to the initiating and modifying factors. Recognize the development of the disease state and the tissues involved. Recognize clinically the various forms of periodontal disease.
3.	Apply the theory of clinical application to the management of the periodontal client. <ol style="list-style-type: none"> Identify the role of the dental hygienist in the treatment of the periodontally involved patient including clinical evaluation, physiotherapy, scaling, curettage, and root planing. Discuss the role of the dental hygienist in the treatment of the periodontally involved patient including clinical evaluation, physiotherapy, scaling, curettage, and root planing.

STANDARDS

Standards Based on the Commission on Dental Accreditation

- DH3F Dental sciences content must include periodontology.
 DH4B Dental hygiene science content must include health promotion.

Related Academic Standards

- R1 Interpret Graphic Information (forms, maps, reference sources)
 R2 Words in Context (same and opposite meaning)
 R3 Recall Information (details, sequence)

- CS14 Social and Cross-Cultural Skills
- CS16 Leadership and Responsibility
- CS15 Productivity and Accountability

SUGGESTED REFERENCES

- Nield-Gehrig, J. S., & Willmann, D. (2011). *Foundations of periodontics for the dental hygienist* (3rd ed.). Hagerstown, MD: Lippincott Williams & Wilkins.
- Perry, D.A. & Beemsterboer, P.L. (2006). *Periodontology for the dental hygienist* (3rd ed.). Philadelphia. PA: Saunders.
- Vernino, A. R., Gray, J. L., & Hughes E. (Eds.). (2007). *The periodontic syllabus* (5th ed.). Hagerstown, MD. Lippincott Williams & Wilkins.

- CS2 Financial, Economic, Business, and Entrepreneurial Literacy
- CS3 Civic Literacy
- CS4 Health Literacy
- CS5 Environmental Literacy
- CS6 Creativity and Innovation
- CS7 Critical Thinking and Problem Solving
- CS8 Communication and Collaboration
- CS9 Information Literacy
- CS10 Media Literacy
- CS11 ICT Literacy
- CS12 Flexibility and Adaptability
- CS13 Initiative and Self-Direction
- CS14 Social and Cross-Cultural Skills
- CS16 Leadership and Responsibility
- CS15 Productivity and Accountability

SUGGESTED REFERENCES

Chernega, J.B. (2001). *Emergency guide for dental auxiliaries* (3rd ed.). Albany, NY: Delmar.

- A2 Number Theory (ratio, proportion)
- A3 Data Interpretation (graph, table, chart, diagram)
- A4 Pre-Algebra and Algebra (equations, inequality)
- A5 Measurement (money, time, temperature, length, area, volume)
- A6 Geometry (angles, Pythagorean theory)
- A7 Computation in Context (whole numbers, decimals, fractions, algebraic operations)
- A8 Estimation (rounding, estimation)
- L1 Usage (pronoun, tense, subject/verb agreement, adjective, adverb)
- L2 Sentence Formation (fragments, run-on, clarity)
- L3 Paragraph Development (topic sentence, supporting sentence, sequence)
- L4 Capitalization (proper noun, titles)
- L5 Punctuation (comma, semicolon)
- L6 Writing Conventions (quotation marks, apostrophe, parts of a letter)
- S1 Vowel (short, long)
- S2 Consonant (variant spelling, silent letter)
- S3 Structural Unit (root, suffix)

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21st Century Skills

- CS1 Global Awareness
- CS2 Financial, Economic, Business, and Entrepreneurial Literacy
- CS3 Civic Literacy
- CS4 Health Literacy
- CS5 Environmental Literacy
- CS6 Creativity and Innovation
- CS7 Critical Thinking and Problem Solving
- CS8 Communication and Collaboration
- CS9 Information Literacy
- CS10 Media Literacy
- CS11 ICT Literacy
- CS12 Flexibility and Adaptability
- CS13 Initiative and Self-Direction
- CS14 Social and Cross-Cultural Skills
- CS16 Leadership and Responsibility
- CS15 Productivity and Accountability

SUGGESTED REFERENCES

Wilkins, E.M. (2009). *Clinical practice of the dental hygienist* (10th ed.). Philadelphia, PA: Lippincott, Williams, & Wilkins.

- M3 Multiplication of Whole Numbers (no regrouping, regrouping)
- M4 Division of Whole Numbers (no remainder, remainder)
- M5 Decimals (addition, subtraction, multiplication, division)
- M6 Fractions (addition, subtraction, multiplication, division)
- M7 Integers (addition, subtraction, multiplication, division)
- M8 Percents
- M9 Algebraic Operations
- A1 Numeration (ordering, place value, scientific notation)
- A2 Number Theory (ratio, proportion)
- A3 Data Interpretation (graph, table, chart, diagram)
- A4 Pre-Algebra and Algebra (equations, inequality)
- A5 Measurement (money, time, temperature, length, area, volume)
- A6 Geometry (angles, Pythagorean theory)
- A7 Computation in Context (whole numbers, decimals, fractions, algebraic operations)
- A8 Estimation (rounding, estimation)
- L1 Usage (pronoun, tense, subject/verb agreement, adjective, adverb)
- L2 Sentence Formation (fragments, run-on, clarity)
- L3 Paragraph Development (topic sentence, supporting sentence, sequence)
- L4 Capitalization (proper noun, titles)
- L5 Punctuation (comma, semicolon)
- L6 Writing Conventions (quotation marks, apostrophe, parts of a letter)
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21st Century Skills

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