

**Health Science Career Cluster
Dental Science II
Course Number: 25.48900**

Course Description:

This course is designed to offer students (preferably upper classmen - juniors or seniors) an in-depth study and practical applications of dental charting, office procedures, chair-side assisting, anatomy and physiology, and tooth morphology. Academics and other related science are integrated throughout the course. Competencies for the co-curricular student organization, HOSA, are integral components of both core employability standards and the technical standards. HOSA activities should be incorporated throughout the instructional strategies for the course. The prerequisites for this course include Introduction to Healthcare Science Technology and Essentials of Dental Science.

Course Standard 1

HS-DSII-1

The following standard is included in all CTAE courses adopted for the Career Cluster/Pathways. Teachers should incorporate the elements of this standard into lesson plans during the course. The topics listed for each element of the standard may be addressed in differentiated instruction matching the content of each course. These elements may also be addressed with specific lessons from a variety of resources. This content is not to be treated as a unit or separate body of knowledge but rather integrated into class activities as applications of the concept.

Standard: Demonstrate employability skills required by business and industry.

The following elements should be integrated throughout the content of this course.

1.1 Communicate effectively through writing, speaking, listening, reading, and interpersonal abilities.

Person-to-Person Etiquette	Telephone and Email Etiquette	Cell Phone and Internet Etiquette	Communicating At Work	Listening
Interacting with Your Boss	Telephone Conversations	Using Blogs	Improving Communication Skills	Reasons, Benefits, and Barriers
Interacting with Subordinates	Barriers to Phone conversations	Using Social Media	Effective Oral Communication	Listening Strategies
Interacting with Co-workers	Making and Returning Calls		Effective Written Communication	Ways We Filter What We Hear
Interacting with Suppliers	Making Cold Calls		Effective Nonverbal Skills	Developing a Listening Attitude
	Handling Conference Calls		Effective Word Use	Show You Are Listening
	Handling Unsolicited Calls		Giving and Receiving Feedback	Asking Questions
				Obtaining Feedback
				Getting Others to Listen

Nonverbal Communication	Written Communication	Speaking	Applications and Effective Résumés
Communicating Nonverbally	Writing Documents	Using Language Carefully	Completing a Job Application
Reading Body Language and mixed Messages	Constructive Criticism in Writing	One-on-One Conversations	Writing a Cover Letter

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Matching Verbal and Nonverbal communication		Small Group Communication	Things to Include in a Résumé
Improving Nonverbal Indicators		Large Group Communication	Selling Yourself in a Résumé
Nonverbal Feedback		Making Speeches	Terms to Use in a Résumé
Showing Confidence Nonverbally		Involving the Audience	Describing Your Job Strengths
Showing Assertiveness		Answering Questions	Organizing Your Résumé
		Visual and Media Aids	Writing an Electronic Résumé
		Errors in Presentation	Dressing Up Your Résumé

1.2 Demonstrate creativity by asking challenging questions and applying innovative procedures and methods.

Teamwork and Problem Solving	Meeting Etiquette
Thinking Creatively	Preparation and Participation in Meetings
Taking Risks	Conducting Two-Person or Large Group Meetings
Building Team Communication	Inviting and Introducing Speakers
	Facilitating Discussions and Closing
	Preparing Visual Aids
	Virtual Meetings

1.3 Exhibit critical thinking and problem solving skills to locate, analyze and apply information in career planning and employment situations.

Problem Solving	Customer Service	The Application Process	Interviewing Skills	Finding the Right Job
Transferable Job Skills	Gaining Trust and Interacting with Customers	Providing Information, Accuracy and Double Checking	Preparing for an Interview	Locating Jobs and Networking
Becoming a Problem Solver	Learning and Giving Customers What They Want	Online Application Process	Questions to Ask in an Interview	Job Shopping Online
Identifying a Problem	Keeping Customers Coming Back	Following Up After Submitting an Application	Things to Include in a Career Portfolio	Job Search Websites
Becoming a Critical Thinker	Seeing the Customer's Point	Effective Résumés:	Traits Employers are Seeking	Participation in Job Fairs
Managing	Selling Yourself and the Company	Matching Your Talents to a Job	Considerations Before Taking a Job	Searching the Classified Ads
	Handling Customer Complaints	When a Résumé Should be Used		Using Employment Agencies
	Strategies for Customer Service			Landing an Internship
				Staying Motivated to Search

1.4 Model work readiness traits required for success in the workplace including integrity, honesty, accountability, punctuality, time management, and respect for diversity.

Workplace Ethics	Personal Characteristics	Employer Expectations	Business Etiquette	Communicating at Work
Demonstrating Good Work Ethic	Demonstrating a Good Attitude	Behaviors Employers Expect	Language and Behavior	Handling Anger
Behaving Appropriately	Gaining and Showing Respect	Objectionable Behaviors	Keeping Information Confidential	Dealing with Difficult Coworkers

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Maintaining Honesty	Demonstrating Responsibility	Establishing Credibility	Avoiding Gossip	Dealing with a Difficult Boss
Playing Fair	Showing Dependability	Demonstrating Your Skills	Appropriate Work Email	Dealing with Difficult Customers
Using Ethical Language	Being Courteous	Building Work Relationships	Cell Phone Etiquette	Dealing with Conflict
Showing Responsibility	Gaining Coworkers' Trust		Appropriate Work Texting	
Reducing Harassment	Persevering		Understanding Copyright	
Respecting Diversity	Handling Criticism		Social Networking	
Making Truthfulness a Habit	Showing Professionalism			
Leaving a Job Ethically				

1.5 Apply the appropriate skill sets to be productive in a changing, technological, diverse workplace to be able to work independently and apply team work skills.

Expected Work Traits	Teamwork	Time Management
Demonstrating Responsibility	Teamwork Skills	Managing Time
Dealing with Information Overload	Reasons Companies Use Teams	Putting First Things First
Transferable Job Skills	Decisions Teams Make	Juggling Many Priorities
Managing Change	Team Responsibilities	Overcoming Procrastination
Adopting a New Technology	Problems That Affect Teams	Organizing Workspace and Tasks
	Expressing Yourself on a Team	Staying Organized
	Giving and Receiving Constructive Criticism	Finding More Time
		Managing Projects
		Prioritizing Personal and Work Life

1.6 Present a professional image through appearance, behavior and language.

On-the-Job Etiquette	Person-to-Person Etiquette	Communication Etiquette	Presenting Yourself
Using Professional Manners	Meeting Business Acquaintances	Creating a Good Impression	Looking Professional
Introducing People	Meeting People for the First Time	Keeping Phone Calls Professional	Dressing for Success
Appropriate Dress	Showing Politeness	Proper Use of Work Email	Showing a Professional Attitude
Business Meal Functions		Proper Use of Cell Phone	Using Good Posture
Behavior at Work Parties		Proper Use in Texting	Presenting Yourself to Associates
Behavior at Conventions			Accepting Criticism
International Etiquette			Demonstrating Leadership
Cross-Cultural Etiquette			
Working in a Cubicle			

Support of CTAE Foundation Course Standards and Georgia Standards of Excellence L9-10RST 1-10 and L9-10WHST 1-10:

Georgia Standards of Excellence ELA/Literacy standards have been written specifically for technical subjects and have been adopted as part of the official standards for all CTAE courses.

Course Standard 2

HS-DSII-2

Classify the basic structural and functional organization of the human body and identify body planes, cavities, regions, directional terms, tissues, organs and parts of the cell.

- 2.1 Define, list, and explain the body systems, planes, and directions, and cavities of the body, and describe the structure and function of the cell.
- 2.2 Explain the functions, divisions, parts, and structures of the body system.
- 2.3 Explain and identify the effects of each body system relating to the oral cavity.

Course Standard 3

HS-DSII-3

Analyze the anatomy, physiology and basic pathophysiology of the head and neck.

- 3.1 Describe the function of the soft tissue structures and soft palate structures.
- 3.2 Differentiate between hard palate and soft palate structures.
- 3.3 Identify and explain the structures and functions of the oral cavity.
- 3.4 Describe the function, location, and ducts of the major salivary glands.
- 3.5 Identify and explain the structures and functions of the cranial bones and the anatomical characteristics.
- 3.6 Identify and describe the bones of the face, including the mandible and the anatomical characteristics.
- 3.7 Identify the muscles of the head and neck and explain the functions.
- 3.8 Identify and describe the functions of the major muscles of mastication, facial expression, floor of the mouth, extrinsic muscles of the tongue, and major posterior muscles of the mouth.
- 3.9 Identify and describe the nerves and blood vessels of the head and neck.
- 3.10 Describe the body planes, directions, major cavities, and structural units of the head and neck.

Course Standard 4

HS-DSII-4

Investigate the development of oral embryology and tooth morphology.

- 4.1 Identify and describe the morphology of the human dentition (enamel, dentin, cementum, and pulp).
- 4.2 Distinguish between primary and permanent teeth and describe the eruptiosequence of each tooth.
- 4.3 Describe the histology of the human dentition.
- 4.4 Explain the development of embryology of the human dentition (ectoderm, endoderm, and mesoderm).
- 4.5 Explain the structure and development of the face.
- 4.6 Identify and describe the parts and tissues of the tooth.
- 4.7 Explain the morphology of teeth and points of reference for communication.
- 4.8 Discuss anomalies that affect tooth and tooth formation and the entire dentition.
- 4.9 Identify and describe the major anatomic landmarks of the oral cavity and head.
- 4.10 Describe the structure and functions of the temporomandibular joint.

Course Standard 5

HS-DSII-5

Perform appropriate dental charting utilizing recognized symbols, abbreviations, charts, and classifications and maintain confidentiality when handling patient records adhering to the Health Insurance Portability and Accountability Act (HIPAA) guidelines.

- 5.1 Demonstrate utilizing the universal notation system.
- 5.2 Identify and explain the symbols commonly used in charting oral conditions.
- 5.3 Evaluate charts that use symbols to represent conditions present in the oral cavity.
- 5.4 Demonstrate adhering to the systems used for charting permanent and deciduous dentitions.
- 5.5 Classify common abbreviations used to identify simple, compound, and complex cavities.
- 5.6 Define the G.V. Black six classifications of cavity preparations.
- 5.7 Perform dental charting and record assessments of existing oral conditions and conditions diagnosed by the dentist.
- 5.8 Demonstrate maintaining confidentiality when handling patient dental records and following the HIPAA guidelines.

Course Standard 6

HS-DSII-6

Utilize office management skills necessary to maintain a dental office.

- 6.1 Identify and explain the dental office staff requirements and responsibilities.
- 6.2 Define and use terminology related to dental practice management.
- 6.3 Demonstrate maintaining an appointment book (scheduling and confirming appointments), patient records, and recall system.
- 6.4 Identify and explain computerized and manual systems for patient management.
- 6.5 Demonstrate maintaining supplies for the dental office.
- 6.6 Inform patient of pre-medication requirements for various procedures.
- 6.7 Demonstrate completing dental insurance forms.
- 6.8 Discuss and explain patient dental coverage plans and the importance of identifying eligibility.
- 6.9 Describe the American Dental Association Nomenclature codes used for insurance billing purposes.
- 6.10 Demonstrate using CD-R codes to identify performed dental procedures.
- 6.11 Describe the design of a dental office and purpose of each area.

Course Standard 7

HS-DSII-7

Perform chair side assisting skills within scope of practice.

- 7.1 Demonstrate assembling armamentarium for an initial oral examination, returning examination, and general practice procedures.
- 7.2 Demonstrate seating the dental patient in preparation for treatment or examination.
- 7.3 Demonstrate dismissing the dental patient after treatment or examination.
- 7.4 Discuss the methods of instrument transfer (including grasps, positions, and transfer of instruments).
- 7.5 Demonstrate transferring of instruments utilizing four-handed dentistry.
- 7.6 Explain the hazards and safety precautions involved when transferring instruments.
- 7.7 Demonstrate oral evacuation techniques with a high-volume evacuation (HVE) and a saliva ejector.
- 7.8 Demonstrate the maintenance and delivery of dental hand pieces.