



Regional Occupational Program

Registered Dental Assistant 2026-2027

COURSE DESCRIPTION

This comprehensive course prepares students for entry-level dental assisting and supports preparation for California Registered Dental Assistant licensure pathways. The curriculum is aligned to foundational dental assisting knowledge and skills, including dental anatomy and physiology, dental terminology, front office operations, infection control, radiology, dental materials, chairside procedures, laboratory practice, and clinical/community classroom experience. The course includes a minimum of 900 hours, including at least 500 hours of classroom/laboratory instruction and at least 300 hours of supervised clinical/community classroom chairside experience. Students who successfully complete the course may be prepared to pursue next steps toward Registered Dental Assistant licensure, including applicable Dental Board of California pathway documentation, required courses, Basic Life Support certification, background check requirements, and the Registered Dental Assistant examination and licensure process.

Course Information

Course Length: 900 Hours minimum
 Prerequisite: None
 Course Level: Capstone
 UC: No
 Articulated: No
 Industry Cert.: Registered Dental Assistant Licensure Preparation
 Industry Sector: Health Science and Medical Technology
 Pathway: Patient Care
 CALPADS: 7922

O*Net SOC Codes

31-9091 Dental Assistants

Legend

CTE - PS CTE Pathway Standards
 CRP Career Ready Practices
 CTE - AS CTE Anchor Standards
 CCSS Common Core State Standards
 ISTE International Society for Technology in Education

*Includes updates from 25/26 Health Science and Medical Technology Advisory
[Advisory Minutes](#)*

Registered Dental Assistant

Course Orientation

- a. Discuss objectives for this course, including competencies, teacher expectations, classroom policies, and procedures.
- b. Identify and discuss the acquisition of transferable skills (communication, collaboration, creativity, and critical thinking) and their importance to being college and career ready and for future personal and professional success.
- c. Review objectives, competencies, and course syllabus.
- d. Discuss student and teacher expectations, including behavior, class rules, appropriate dress, pre-course knowledge, and grading policies, including enrollment and attendance requirements and procedures, and classroom/school safety and disaster procedures.
- e. Discuss next steps in course sequence related to the career pathway, the need for reinforcement of basic skills, transferrable skills, and postsecondary and career options.
- f. Discuss the Big Six: Career Ready Essentials and the Standards for Career Ready Practice as they relate to this course, all aspects of the industry sector, and being college and career ready.

Big Six: Career Ready Essentials

1. Effective Communication	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ol style="list-style-type: none"> a. Demonstrate effective verbal communication and conflict resolution skills. b. Use the writing process to develop written communication with the appropriate tone, organization, and format for the identified audience. c. Explain the effect of interpersonal skills on one's ability to communicate effectively and develop relationships. d. Describe the impact of ineffective communication on business relationships. e. Analyze the impact of vocabulary, body language, and tone on verbal communication. f. Demonstrate active listening skills. g. Accurately interpret industry-specific written communication. h. Model responsible and effective use of various communication technologies. i. Identify valid and reliable digital reference and resource materials. j. Gather information from multiple digital sources to compare and contrast, synthesize, and summarize. k. Identify and use appropriate communication and collaboration technologies. l. Utilize technology to problem solve, accomplish tasks, and to produce or publish products. 		<u>1</u> <u>2</u> <u>11</u>	<u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>7</u> <u>8</u> <u>9</u> <u>10</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u> <u>SLS</u> <u>11-12.2</u> <u>9-10</u> <u>11-12.1</u> <u>11-12.1d</u> <u>WS</u> <u>11-12.7</u> <u>11-12.6</u>	<u>1b,c</u> <u>2c</u> <u>3b,c</u> <u>5c</u> <u>6b,c,d</u>
2. Collaboration, Creativity, and Critical Thinking	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ol style="list-style-type: none"> a. Demonstrate critical thinking skills for a variety of purposes and in different settings. b. Collaborate to reach consensus on an identical objective through the sharing of knowledge, tasks, and learning. c. Discuss the importance of the critical thinking process to real-world applications. 		<u>2</u> <u>4</u> <u>5</u> <u>7</u>	<u>2</u> <u>3</u> <u>4</u> <u>5</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u>	<u>1c</u> <u>3c,d</u> <u>4a-d</u> <u>5c,d</u>

<ul style="list-style-type: none"> d. Evaluate the impact of creative thinking on problem solving and innovation in real-world applications. e. Compile work that demonstrates the process used to (elaborate, refine, analyze) evaluate original ideas and maximize creative efforts. f. Apply divergent and convergent thinking to the development of an original idea or solution. g. Examine real-world limits to adopting ideas. h. Demonstrate creative thinking (preparation, insight, evaluation, elaboration, and communication) to create a new idea or concept. i. Assume shared responsibility for collaborative work, and value the individual contributions made by each team member. j. Evaluate evidence, arguments, claims, and beliefs to identify connections. k. Identify bias, prejudice, propaganda, self-deception, distortion, and misinformation. l. Produce intellectual, informational, or material products that serve an authentic purpose. m. Work effectively and respectfully with those from diverse backgrounds or cultures. n. Demonstrate respect, trust, commitment, and the ability to compromise in collaborative projects. 		<u>9</u> <u>10</u> <u>11</u>	<u>7</u> <u>8</u> <u>9</u> <u>11</u>	<u>SLS</u> <u>9-10</u> <u>11-12.1</u> <u>11-12.1d</u> <u>11-12.2</u> <u>WS</u> <u>11-12.7</u> <u>11-12.6</u>	<u>6c</u> <u>7b,c,d</u>
3. Leaders and Teams: Roles and Responsibilities	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Determine the individual and team members' roles and responsibilities. b. Demonstrate leadership skills and qualities (i.e., reliability, negotiation skills, initiative, positive reinforcement, recognition of others' efforts, problem-solving skills, conflict resolution, and delegation). c. Explain the importance of technical, social, and communication skills to team success. d. Compare and contrast leadership styles and their effectiveness in various situations. e. Organize and delegate responsibilities in a team setting to encourage ideas, perspectives, and contributions from all team members. f. Develop a strong sense of team identity by brainstorming solutions, volunteering, assisting others, practicing respect and courtesy, and taking initiative. g. Examine situations in which a follower becomes the leader. h. Describe twenty-first-century skills required across all occupations. i. Identify and discuss the characteristics of a successful team (i.e., leadership, cooperation, and effective decision-making). j. Leverage social and cultural differences to increase innovation and quality of work. 		<u>7</u> <u>8</u> <u>9</u>	<u>3</u> <u>7</u> <u>8</u> <u>9</u> <u>11</u>	<u>SLS</u> <u>11-12.2</u> <u>9-10</u> <u>11-12.1</u> <u>11-12.1d</u> <u>WS</u> <u>11-12.6</u>	<u>7a,c</u>
4. Legal, Ethical, and Environmental Considerations	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Demonstrate industry-specific ethical and legal practices. b. Identify eco-friendly industry-specific practices and resources. c. Identify local, state, and federal regulatory agencies, entities, laws, and regulations. 		<u>5</u> <u>7</u> <u>8</u>	<u>3</u> <u>5</u> <u>7</u>	<u>WS</u> <u>11-12.6</u> <u>11-12.7</u>	<u>2a,b</u> <u>3a,b</u> <u>5c</u>

<ul style="list-style-type: none"> d. Identify discrimination based on race, nationality, religion, gender, age, disability, or sexual orientation. e. Summarize the ethical and legal implications of workplace discrimination and harassment. f. Explain the concept of corporate citizenship. g. Examine an employer's role in protecting the health and welfare of employees, the community, and the environment. h. Analyze current environmental laws and regulations and their impact on industry. i. Compare and contrast both society's and industry's impact on the environment. 		<u>12</u>	<u>8</u> <u>9</u> <u>11</u>	<u>SLS</u> <u>9-10</u> <u>11-12.1</u> <u>11-12.1d</u> <u>11-12.2</u>	<u>6c</u>
5. Personal Growth and Career Planning	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Demonstrate continued personal development and growth. b. Develop and manage a personal growth and career plan. c. Explain the relationship between sound financial habits and financial security. d. Create and manage a personal financial plan. e. Demonstrate initiative in achieving personal and professional goals. f. Apply time management strategies to meet deadlines. g. Demonstrate a growth mindset through flexibility and a positive attitude. h. Select and demonstrate appropriate job-search and retention techniques. i. Demonstrate strategies to prepare for employment. j. Demonstrate interpersonal skills appropriate for the workplace. k. Elaborate on the importance of perseverance to personal and professional success. l. Discover personal career interests, aptitudes, and skills. 		<u>1</u> <u>2</u> <u>3</u> <u>4</u> <u>6</u>	<u>2</u> <u>3</u> <u>4</u> <u>7</u> <u>8</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u> <u>SLS</u> <u>9-10</u> <u>11-12.1</u> <u>11-12.1d</u> <u>11-12.2</u> <u>WS</u> <u>11-12.6</u>	<u>1a</u> <u>3a,c</u> <u>4d</u> <u>6a,d</u> <u>7b</u>
6. Workplace Safety and Personal Wellness	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Demonstrate proper industry-specific safe work practices to prevent injury or illness. b. Assess the potential impact of goal setting on personal and professional success. c. Describe the role of security and emergency procedures in workplace safety. d. Describe the effect of preventative measures on emergencies in the workplace. e. Identify and describe the causes, prevention, and treatment of common accidents. f. Identify local, state, and federal agencies that regulate workplace safety. g. Explain the role of the California Occupational Safety and Health Administration (Cal-OSHA) and the Environmental Protection Agency (EPA). h. Discuss the basics of system operations. i. Demonstrate the proper use of personal protective equipment (PPE). j. Explain the purpose of and accurately interpret a Safety Data Sheet (SDS). k. Identify hazardous materials and chemicals. l. Demonstrate proper procedures to respond to work-related accidents and injuries. m. Describe how ergonomics, housekeeping, and maintenance are related to accidents and injuries. 		<u>2</u> <u>5</u> <u>6</u> <u>8</u> <u>12</u>	<u>2</u> <u>5</u> <u>6</u> <u>7</u> <u>8</u> <u>10</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u> <u>WS</u> <u>11-12.7</u> <u>11-12.6</u> <u>SLS</u> <u>9-10</u> <u>11-12.1</u> <u>11-12.1d</u>	<u>1a,d</u> <u>2a,d</u> <u>5b</u>

n. Demonstrate cyber ethics, cyber safety, and cybersecurity.					
o. Assess the potential impact of preventative physical and mental health measures on workplace safety.					

Registered Dental Assistant Units of Instruction

7. Registered Dental Assistant Qualifications	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Identify registered dental assisting careers and employment opportunities. b. Explain the education, training, pathway documentation, required courses, Basic Life Support certification, background check, and examination requirements to become a Registered Dental Assistant in California. c. Explain the Registered Dental Assistant Combined Written and Law and Ethics Examination required for licensure through the Dental Board of California. d. Outline the requirements candidates must meet to qualify to take the California Registered Dental Assistant examination. e. Explain the Dental Board of California licensure pathways that candidates may use to qualify for Registered Dental Assistant licensure, including board-approved education, work experience, nonboard-approved dental assisting education with work experience, alternative dental assisting programs, preceptorship, certified dental assistant, and registered dental hygienist pathways. f. Explain required topics and courses related to the California Dental Practice Act, infection control, radiation safety, coronal polishing, pit and fissure sealants, and Basic Life Support, as applicable to the RDA licensure process. g. Summarize how candidates go about meeting the requirements of fingerprinting and a criminal background check required to become a registered dental assistant. h. Analyze and explain the career ladder for registered dental assistants and where to find employment. i. Compare and contrast the duties of a registered dental assistant and a dental assistant in California. j. Demonstrate hands-on dental assisting skills using simulation equipment, typodonts, and/or clinical practice activities as appropriate. k. Identify the requirements for receiving a radiography certificate from the state of California. l. Demonstrate knowledge related to the Registered Dental Assistant written examination content. m. Demonstrate knowledge related to California dental law and ethics requirements for Registered Dental Assistant licensure. 	B12.2	<u>1</u> <u>2</u> <u>5</u> <u>8</u>	<u>1</u> <u>2</u> <u>5</u> <u>8</u> <u>11</u>	LS 9-10 11-12.6 WS 11-12.7 SLS 11-12.1d	
8. Dental History	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Explain the development of the dental profession. 		<u>1</u> <u>2</u>	<u>1</u> <u>2</u>	LS 9-10	

<p>b. Describe how dental education and professional development evolved in the United States.</p> <p>c. Identify people who have made significant contributions to the development of dentistry.</p> <p>d. List the discoveries of at least two prominent people in the history of dentistry.</p> <p>e. Describe the concept of dental care.</p> <p>f. Compare and contrast the contributions of ancient cultures of Egypt, China, Greece, and Rome to dentistry.</p> <p>g. Summarize dentistry in early America.</p>		<p><u>5</u> <u>11</u></p>	<p><u>5</u></p>	<p>11-12.6 WS 11-12.7</p>	
<p>9. Dental Health Team</p>	<p>CTE - PS</p>	<p>CRP</p>	<p>CTE - AS</p>	<p>CCSS</p>	<p>ISTE</p>
<p>a. Recognize and describe the role of different members of the dental health team.</p> <p>b. Identify and describe current dental specialties recognized by the American Dental Association.</p> <p>c. Describe the educational and training requirements for each member of the dental health team.</p> <p>d. Characterize the role of each member of the dental health team including the Dentist/Operator, Dental Assistant, Dental Hygienist, and Dental Laboratory Technician.</p> <p>e. Identify the licensure and/or certification requirements for each member of the dental health team.</p> <p>f. Explain career opportunities and income for registered dental assistants.</p> <p>g. Summarize the Health Insurance Portability and Accountability Act (HIPAA) and patient confidentiality requirements.</p>	<p>B12.1 B12.3</p>	<p><u>1</u> <u>2</u> <u>5</u></p>	<p><u>1</u> <u>2</u> <u>5</u></p>	<p>LS 9-10 11-12.6 WS 11-12.7</p>	
<p>10. Dental Terminology</p>	<p>CTE - PS</p>	<p>CRP</p>	<p>CTE - AS</p>	<p>CCSS</p>	<p>ISTE</p>
<p>a. Spell, use, and pronounce dental terms correctly.</p> <p>b. Recognize, identify, and use approved dental abbreviations.</p> <p>c. Define, spell, and pronounce dental terms.</p> <p>d. Abbreviate dental terms.</p> <p>e. Interpret common patient language related to dental terminology.</p> <p>f. Define prefixes, suffixes, word roots, and combining forms.</p> <p>g. Use the plural form of commonly used dental terms.</p> <p>h. Recognize word elements and abbreviations used in dentistry.</p>	<p>B5.0 B5.3 B5.6</p>	<p><u>1</u> <u>2</u> <u>5</u></p>	<p><u>1</u> <u>2</u> <u>5</u> <u>11</u></p>	<p>LS 9-10 11-12.6 WS 11-12.7</p>	
<p>11. Personal Health, Professional Appearance, and Wellness</p>	<p>CTE - PS</p>	<p>CRP</p>	<p>CTE - AS</p>	<p>CCSS</p>	<p>ISTE</p>
<p>a. Explain the importance of personal wellness, professional appearance, and health practices for registered dental assistants.</p> <p>b. Describe daily personal hygiene practices for dental assistants.</p> <p>c. Describe good health practices for dental assistants.</p>	<p>B9.1</p>	<p><u>1</u> <u>2</u> <u>5</u> <u>6</u></p>	<p><u>1</u> <u>2</u> <u>5</u> <u>6</u></p>	<p>LS 9-10 11-12.6</p>	

<p>d. Explain how posture, diet, dental care, exercise, and sleep relate to good health.</p> <p>e. Demonstrate the proper dress requirements for dental assistants.</p> <p>f. Demonstrate professional appearance and personal hygiene practices appropriate for dental assisting settings.</p>			<p>11</p>	<p>WS 11-12.7 RSTS 9-10 11-12.4</p>	
<p>12. Overview of the Dentitions</p>	<p>CTE - PS</p>	<p>CRP</p>	<p>CTE - AS</p>	<p>CCSS</p>	<p>ISTE</p>
<p>a. Identify the names and locations of the various types of teeth in the human dentition.</p> <p>b. Describe the relationship of teeth within the same and opposing arches.</p> <p>c. Explain Angle’s classification of malocclusion.</p> <p>d. Name the three dentition periods and explain the differences between them.</p> <p>e. Name the two dental arches and explain two ways that the arches can be divided.</p> <p>f. Identify the location of each primary and permanent tooth.</p> <p>g. Describe the anatomical features of the teeth.</p> <p>h. Name and identify the location of each tooth surface.</p> <p>i. Use terminology to identify landmarks of the teeth, including the curves of Spee and Wilson.</p> <p>j. Compare and contrast occlusion and malocclusion.</p> <p>k. Name and describe the three primary systems of tooth numbering and identify teeth using each system.</p>	<p>B2.0 B2.2 B5.1</p>	<p>1 2 5</p>	<p>1 2 5 11</p>	<p>LS 9-10 11-12.6 WS 11-12.7</p>	
<p>13. Oral Anatomy</p>	<p>CTE - PS</p>	<p>CRP</p>	<p>CTE - AS</p>	<p>CCSS</p>	<p>ISTE</p>
<p>a. Identify the landmarks of the oral cavity.</p> <p>b. Identify the landmarks of the oral cavity proper.</p> <p>c. Describe the anatomy and physiology of the dental arch.</p> <p>d. Describe the structures of normal gingival tissue.</p> <p>e. Identify the structures of the tongue and taste buds.</p> <p>f. Identify at least three tissues that surround and support a tooth.</p> <p>g. List and describe two types of connective tissue that comprise the periodontal ligament.</p>	<p>B2.1</p>	<p>1 2 5</p>	<p>1 2 5 11</p>	<p>LS 9-10 11-12.6 WS 11-12.7</p>	
<p>14. Tooth Morphology</p>	<p>CTE - PS</p>	<p>CRP</p>	<p>CTE - AS</p>	<p>CCSS</p>	<p>ISTE</p>
<p>a. Identify the characteristics, including shape and size, of individual teeth and explain how these characteristics apply to clinical considerations.</p> <p>b. Identify the location of each anterior and posterior permanent tooth.</p> <p>c. Identify the location of each anterior and posterior primary tooth.</p> <p>d. Identify each tooth using correct terminology and Universal/National tooth numbering system designations.</p> <p>e. Explain how the size and shape of teeth determine the functions of different types of teeth.</p> <p>f. Use the correct terminology when discussing features of the primary and permanent dentition.</p>	<p>B2.0 B2.1 B5.1</p>	<p>1 2 5</p>	<p>1 2 5 11</p>	<p>LS 9-10 11-12.6 WS 11-12.7</p>	

<p>g. Describe the general and specific features of each tooth in the primary and permanent dentition.</p> <p>h. Discuss clinical considerations of each tooth in the primary and permanent dentition.</p>					
<p>15. Oral Embryology and Oral Histology</p>	<p>CTE - PS</p>	<p>CRP</p>	<p>CTE - AS</p>	<p>CCSS</p>	<p>ISTE</p>
<p>a. Identify the structures of the face and describe the functions of the teeth and oral tissues.</p> <p>b. Explain the development of teeth and oral structures and how development may influence dental care.</p> <p>c. Define embryology and describe the three periods of prenatal development (preimplantation, embryonic, fetal).</p> <p>d. Describe influences on prenatal dental development.</p> <p>e. Identify and describe the stages of the development of the hard and soft palates.</p> <p>f. Explain development disturbances that may cause anomalies and identify and describe these anomalies.</p> <p>g. Define histology and describe its importance in dental care.</p> <p>h. Describe the stages in tooth development.</p> <p>i. List the chronological order of eruption of the primary and permanent dentition.</p> <p>j. Identify and list the functions of the crown, root, enamel, dentin, cementum, and pulp.</p> <p>k. Describe the periodontium, including the alveolar process, periodontal ligament, fiber groups, lining mucosa, masticatory mucosa, and specialized mucosa.</p>	<p>B2.1</p>	<p>1 2 5</p>	<p>1 2 5 11</p>	<p>LS 9-10 11-12.6 WS 11-12.7</p>	
<p>16. Head and Neck Anatomy</p>	<p>CTE - PS</p>	<p>CRP</p>	<p>CTE - AS</p>	<p>CCSS</p>	<p>ISTE</p>
<p>a. Know and understand the basic head and neck anatomy as it relates to the anatomic basis for the clinical practice of dental assisting.</p> <p>b. Identify the routes of blood vessels in the head and neck and describe the importance of this knowledge.</p> <p>c. Identify and describe the bones of the skull.</p> <p>d. Identify and describe the bones of the face.</p> <p>e. Identify and describe the bones of the neck.</p> <p>f. Describe the postnatal development of the skull.</p> <p>g. Compare and contrast the male and female skull.</p> <p>h. Identify the temporomandibular joints, their components, and describe their disorders.</p> <p>i. Name, locate, and describe the muscles of mastication.</p> <p>j. Discuss the relationship between the muscles of mastication and the supporting structures of human dentition.</p> <p>k. Describe the lymphatic system and discuss the important aspects related to dentistry.</p> <p>l. Identify the locations of minor and major salivary glands and ducts.</p> <p>m. Identify the three large salivary glands.</p> <p>n. Discuss the physiological function of the salivation reflex.</p>	<p>B2.0 B2.1</p>	<p>1 2 5</p>	<p>1 2 5 11</p>	<p>LS 9-10 11-12.6 WS 11-12.7</p>	

<p>o. Name, locate, and describe the cranial and facial blood vessels.</p> <p>p. Identify the paranasal sinuses.</p>					
17. Dental Caries	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<p>a. Explain the causes and effects of dental caries.</p> <p>b. Explain how dental caries can be prevented.</p> <p>c. Describe the effect dental caries have on the human body's systemic health.</p> <p>d. Perform an accurate caries risk assessment.</p> <p>e. Identify common bacteria and risk factors associated with dental caries.</p> <p>f. Identify biological, behavioral, dietary, and environmental factors that contribute to dental caries.</p> <p>g. Describe how dental caries are transmitted.</p> <p>h. Name four areas of the tooth where dental caries can occur.</p> <p>i. Identify key risk factors for dental caries.</p> <p>j. Describe how plaque and tartar transmit microorganisms causing dental caries.</p> <p>k. Identify the risk factors for early childhood caries, how it is transmitted and the possible consequences.</p> <p>l. Explain the role of saliva in oral health.</p> <p>m. Describe the relationship between diet and dental caries.</p> <p>n. Explain the remineralization process.</p> <p>o. Distinguish between root caries and smooth surface caries.</p> <p>p. Compare and contrast advantages and limitations of caries detection methods and devices, including laser-based technology when applicable.</p> <p>q. Identify the methods of caries intervention.</p>	<p>B1.2</p> <p>B1.4</p>	<p><u>1</u></p> <p><u>2</u></p> <p><u>5</u></p>	<p><u>1</u></p> <p><u>2</u></p> <p><u>5</u></p> <p><u>11</u></p>	<p>LS</p> <p>9-10</p> <p>11-12.6</p> <p>WS</p> <p>11-12.7</p>	
18. Periodontal Disease	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<p>a. Describe current periodontal disease classifications and case types used in dental practice.</p> <p>b. Identify and describe the causes, common signs, and symptoms of periodontal disease.</p> <p>c. Compare and contrast healthy gingiva with diseased gingiva.</p> <p>d. Describe the prevalence of periodontal disease.</p> <p>e. Name and describe the structures that make up the periodontium.</p> <p>f. Identify and describe relationships between periodontal disease and systemic health conditions.</p> <p>g. Identify and describe two types of periodontal disease.</p> <p>h. Explain the significance of plaque and calculus in periodontal disease.</p> <p>i. Identify the risk factors that contribute to periodontal disease.</p> <p>j. Describe the signs and symptoms and progression of periodontal disease.</p>	<p>B2.3</p> <p>B2.4</p>	<p><u>1</u></p> <p><u>2</u></p> <p><u>5</u></p>	<p><u>1</u></p> <p><u>2</u></p> <p><u>5</u></p> <p><u>11</u></p>	<p>LS</p> <p>9-10</p> <p>11-12.6</p> <p>WS</p> <p>11-12.7</p>	
19. Preventive Dentistry	CTE - PS	CRP	CTE - AS	CCSS	ISTE

<ul style="list-style-type: none"> a. Understand and explain the goal of preventive dentistry. b. Know the roles and responsibilities of the registered dental assistant in educating patients. c. Explain the role fluoride plays in preventive dental health, including sources, applications, and patient education considerations. d. Explain the goal of preventive dentistry. e. Name and explain the guidelines for preventive patient education. f. Describe the components of a preventive dentistry program. g. Describe why dental care is so important for pregnant women. h. Describe the effect of water fluoridation on teeth. i. Compare and contrast the methods of tooth brushing techniques. j. Demonstrate knowledge and skills related to topical fluoride application according to professional guidelines, facility policy, and allowable duties. k. Identify various oral hygiene products and describe how they can prevent plaque. 	B1.4 B6.0 B9.5	<u>1</u> <u>2</u> <u>5</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	LS 9-10 11-12.6 WS 11-12.7	
20. Dental Health Education	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Explain the relationship between teaching preventive dental care and reducing dental disease risk. b. Explain the guidelines registered dental assistants should follow when providing dental health education to patients. c. Explain plaque control. d. Describe the composition and formation of dental plaque. e. Identify the main irritant in plaque and describe how frequently it should be disrupted. f. Describe the purpose of plaque disclosing agents. g. Identify and demonstrate three tooth brushing techniques. h. Compare and contrast the use of waxed and un-waxed dental floss. i. Describe the correct method for flossing teeth. j. List the advantages and disadvantages of an oral irrigation device. k. Explain the rationale for applying fluorides to the teeth. l. Name and describe the ideal concentration (parts per million) of fluoride in water. m. Describe the purpose of pit and fissure sealants. n. Describe how genetics, tobacco use, diabetes, and diet affect dental health. o. Provide patients with pre- and post-operative instructions, as directed and within allowable duties. 	B9.3	<u>1</u> <u>2</u> <u>5</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	LS 9-10 11-12.6 WS 11-12.7	
21. Nutrition	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Explain the relationship of diet and nutrition with dental health. b. Explain the relationship between frequency and amount of cariogenic foods and beverages and the risk of tooth decay. 	B9.0 B9.2 B9.5	<u>1</u> <u>2</u> <u>5</u>	<u>1</u> <u>2</u> <u>5</u>	LS 9-10 11-12.6	

<ul style="list-style-type: none"> c. Compare and contrast Recommended Dietary Allowances (RDAs), Dietary Reference Intakes (DRIs), and Dietary Guidelines for Americans. d. Identify the six key nutrients of food and their effect on dental health. e. Describe the function of fats in the body including cholesterol. f. Describe the function of carbohydrates and proteins in the daily diet. g. Name two vitamins and minerals that are important in the structure of teeth and bones. h. Explain the need for water in the body. i. Identify current dietary guidance and explain how nutrition choices affect oral and overall health. j. Compare frequency versus intake volume of sugary foods and dental caries control. k. Explain the dental health implications of eating disorders. 			<u>11</u>	<u>WS</u> <u>11-12.7</u>	
22. Oral Pathology	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Explain why registered dental assistants must have a solid understanding of oral pathology. b. Recognize the oral manifestations of disease, nutritional and developmental disorders. c. Describe the classic signs of inflammation and identify its causes. d. Compare and contrast acute and chronic inflammation. e. Identify and describe the types of oral lesions including those associated with smokeless tobacco. f. Compare and contrast normal and abnormal manifestations of the oral cavity and tongue. g. Identify three types of therapy for oral cancer. h. Describe the signs and symptoms of leukemia. i. Describe and list the etiology and control of dental caries and periodontal disease. j. Give examples of periodontal disease. k. Describe the relationship between systemic diseases and dental diseases. l. Describe developmental diseases of enamel, hypoplasia, Hutchinson’s incisors, mottled enamel, anodontia, cleft lip, and palate. m. Describe the warning signs of oral cancer. n. Explain methods of preventing oral cancer. o. Demonstrate knowledge of oral cancer screening support and recognition of abnormal findings within the dental assistant’s allowable duties. 	<u>B1.2</u> <u>B2.2</u> <u>B2.3</u>	<u>1</u> <u>2</u> <u>5</u> <u>12</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u> <u>WS</u> <u>11-12.7</u>	
23. General Anatomy	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Describe why it is important for registered dental assistants to have solid knowledge of the structure and anatomy of the human body. b. Identify and describe the four levels of organization in the human body. c. Compare and contrast anatomy and physiology. d. Identify the planes and associated body directions used to divide the body into sections. 	<u>B2.1</u> <u>B5.0</u>	<u>1</u> <u>2</u> <u>5</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u> <u>WS</u>	

<ul style="list-style-type: none"> e. Describe the components of a cell including different types of stem cells. f. Identify and describe the four types of tissues in the human body. g. Explain the difference between an organ and a body system. h. Name and locate the two major body cavities and their components. 				11-12.7	
24. General Physiology	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Explain why understanding physiology is important to the registered dental assistant. b. Name, locate, and describe the components of major body systems. c. Locate the skeletal system; explain its purpose, components, functions, and describe the signs and symptoms of its common disorders. d. Locate the muscular system; explain its purpose, components, functions, and describe the signs and symptoms of its common disorders. e. Locate the cardiovascular system; explain its purpose, components, functions, and describe the signs and symptoms of its common disorders. f. Locate the nervous system; explain its purpose, components, functions, and describe the signs and symptoms of its common disorders. g. Locate the respiratory system; explain its purpose, components, functions, and describe the signs and symptoms of its common disorders. h. Locate the digestive system; explain its purpose, components, functions, and describe the signs and symptoms of its common disorders. i. Locate the endocrine system; explain its purpose, components, functions, and describe the signs and symptoms of its common disorders. j. Locate the urinary system; explain its purpose, components, functions, and describe the signs and symptoms of its common disorders. k. Locate the integumentary system; explain its purpose, components, functions, and describe the signs and symptoms of its common disorders. l. Locate the reproductive system; explain its purpose, components, functions, and describe the signs and symptoms of its common disorders. m. Give examples of conditions that require interaction of the body systems. 	B2.0	<ul style="list-style-type: none"> 1 2 5 	<ul style="list-style-type: none"> 1 2 5 11 	<ul style="list-style-type: none"> LS 9-10 11-12.6 WS 11-12.7 	
25. Microbiology	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Summarize the role of infection control in dentistry. b. Explain why the study of microbiology is important for registered dental assistants. c. Identify the five major classifications of microorganisms. d. Identify the three basic types of bacteria according to their shape and the diseases they cause. e. Describe the differences between aerobes, anaerobes, and facultative anaerobes. f. Compare and contrast the characteristics of bacteria and viruses. 	B10.1	<ul style="list-style-type: none"> 1 2 5 	<ul style="list-style-type: none"> 1 2 5 11 	<ul style="list-style-type: none"> LS 9-10 11-12.6 WS 11-12.7 	

<ul style="list-style-type: none"> g. State at least two reasons why viruses are so difficult to control and how they are transmitted. h. Describe the characteristics and diseases that may be caused by spores, algae, protozoa, fungi, and prions. i. Identify methods of HIV transmission and explain the effect of HIV on the human body. j. Describe the causes, symptoms, prevention, and general treatment considerations for hepatitis and HIV/AIDS. k. Explain differences among common herpes viruses, including herpes simplex virus types 1 and 2. l. Summarize direct, indirect, droplet, and carrier mechanisms for the transmission of disease. m. Describe the characteristics of influenza and how it spreads. n. Explain transmission considerations for tuberculosis, Legionnaires' disease, tetanus, syphilis, and MRSA. o. Describe the possible effects of emerging and pandemic infectious diseases on dental practice and infection prevention. 					
<p>26. Disease Transmission and Infection Prevention</p>	<p>CTE - PS</p>	<p>CRP</p>	<p>CTE - AS</p>	<p>CCSS</p>	<p>ISTE</p>
<ul style="list-style-type: none"> a. Describe five ways disease can be transmitted in a dental office. b. Explain how the immune system provides the body with resistance to infection. c. Explain the infection control practices registered dental assistants must follow to prevent disease transmission. d. Summarize the OSHA Bloodborne Pathogens Standard, Standard Precautions, and the dental office exposure control plan. e. Describe the six links of the chain of infection that must be present for infection to occur. f. Compare and contrast acute, chronic, latent, and opportunistic infections. g. Describe communicable disease, immunity, inherited immunity, acquired immunity, naturally acquired immunity, and artificially acquired immunity. h. Identify and describe the modes of disease transmission in a dental office. i. Compare and contrast methods of disinfection and sterilization. j. Explain proper hand hygiene for dental assistants. k. Identify and describe the purpose of personal protective equipment (PPE), including masks, protective eyewear, face shields, gowns, and gloves. l. Demonstrate the proper sequence for donning and removing personal protective equipment (PPE). m. Explain post-exposure incident management and first aid procedures. n. Describe the employer's responsibility regarding maintaining employee medical records. o. Identify sharps that must be placed in a sharps container and describe proper handling and disposal procedures. 	<p>B9.1 B10.0 B10.2 B10.3 B10.4 B10.5 B11.0</p>	<p><u>1</u> <u>2</u> <u>5</u> <u>6</u></p>	<p><u>1</u> <u>2</u> <u>5</u> <u>6</u> <u>11</u></p>	<p>LS 9-10 11-12.6 WS 11-12.7 RSTS 9-10 11-12.4</p>	

<p>p. Describe proper handling and disposal methods for regulated medical waste, biohazard waste, sharps, and extracted teeth according to facility policy and applicable regulations.</p> <p>q. Describe procedures to prevent cross-contamination in the dental laboratory.</p> <p>r. Explain the precautions necessary when treating a patient with active tuberculosis.</p>					
<p>27. Principles and Techniques of Disinfection</p>	<p>CTE - PS</p>	<p>CRP</p>	<p>CTE - AS</p>	<p>CCSS</p>	<p>ISTE</p>
<p>a. Summarize the importance of infection prevention and control for clinical contact surfaces.</p> <p>b. Explain the process of cleaning and disinfecting a treatment room.</p> <p>c. Explain how high-volume evacuation systems reduce contamination of the dental team and clinical surfaces.</p> <p>d. Explain why dental treatment room surfaces need barriers or disinfection.</p> <p>e. Describe two methods to deal with surface contamination.</p> <p>f. Describe CDC recommendations for cleaning and disinfecting clinical contact surfaces in dental settings.</p> <p>g. Compare and contrast single-use items and reusable items.</p> <p>h. Compare and contrast disinfectants to antiseptics.</p> <p>i. Describe appropriate sterilization and high-level disinfection methods used in dental settings, including heat sterilization and chemical sterilants when applicable.</p> <p>j. Demonstrate the process of cleaning and disinfecting a treatment room.</p> <p>k. Identify the protective devices used by dental assistants while preparing instruments.</p> <p>l. Name the typical procedure that requires disinfecting prior to seating each patient.</p> <p>m. Classify chemical sterilants and disinfectants.</p> <p>n. Explain instrument pre-cleaning techniques used before packaging and sterilization.</p>	<p>B10.0 B10.2 B10.6</p>	<p>1 2 5 12</p>	<p>1 2 5 11</p>	<p>LS 9-10 11-12.6 WS 11-12.7</p>	
<p>28. Instrument Processing and Sterilization</p>	<p>CTE - PS</p>	<p>CRP</p>	<p>CTE - AS</p>	<p>CCSS</p>	<p>ISTE</p>
<p>a. Summarize CDC recommendations for sterilization, disinfection, and processing of dental patient-care items.</p> <p>b. Explain how a dental assistant can be exposed to microorganisms through dental instruments and patient care items.</p> <p>c. Explain how sterilization failures can occur.</p> <p>d. Describe the classification of instruments used to determine the type of processing.</p> <p>e. Describe precleaning and packaging of instruments.</p> <p>f. Describe the necessary safety precautions when operating an ultrasonic cleaner.</p> <p>g. Compare and contrast the three most common methods of heat sterilization.</p> <p>h. Describe proper procedures for operating sterilization equipment, including autoclave use and immediate-use steam sterilization when applicable.</p> <p>i. Describe physical, chemical, and biological sterilization monitoring.</p>	<p>B10.0 B10.6</p>	<p>1 2 5 12</p>	<p>1 2 5 11</p>	<p>LS 9-10 11-12.6 WS 11-12.7</p>	

j. Explain the personal safety precautions registered dental assistants must take when sterilizing dental instruments.					
29. The Dental Office	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<p>a. Identify the areas of the dental environment in a professional dental office.</p> <p>b. Identify the clinical equipment most commonly found in the operatory and describe their functions.</p> <p>c. Explain the importance of opening and closing routines for registered dental assistants.</p> <p>d. Describe the important qualities of the reception area and the design goals of the operatory.</p> <p>e. Identify the three dental chair positions and describe their purposes.</p> <p>f. Identify the parts and describe how to operate the dental chair.</p> <p>g. Explain the operation of dental chair accessories such as oral evacuation systems, air-water syringe, cuspidor, and handpieces.</p> <p>h. Describe the required maintenance care of the central vacuum and air compressor.</p> <p>i. Position the assistant's stool so the registered dental assistant is seated correctly.</p> <p>j. Explain the care involved in maintaining dental equipment.</p> <p>k. Summarize the Centers for Disease Control and Prevention (CDC) recommendations for dental unit water quality.</p>	<u>B8.0</u>	<u>1</u> <u>2</u> <u>5</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u> <u>WS</u> <u>11-12.7</u>	
30. Dental Assisting Chairside	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<p>a. Describe the basic goals of four-handed dentistry.</p> <p>b. Identify instruments and materials used in chairside procedures.</p> <p>c. Explain the importance and describe how to prepare the dental treatment room for a procedure.</p> <p>d. Explain how to correctly admit and discharge a patient from the dental chair.</p> <p>e. Explain the clock concept of operating zones for both right and left-handed operators.</p> <p>f. Demonstrate proper use of a dental mirror including indirect vision.</p> <p>g. Describe the maxillary and mandibular operating light positions.</p> <p>h. Identify and describe four items that must be transferred differently because of design or use.</p> <p>i. Demonstrate both single and two-handed transfer of instruments.</p> <p>j. Model pen, palm, and palm-thumb grasp techniques used in four-handed dentistry.</p> <p>k. Describe what a fulcrum is and how it is used.</p> <p>l. Identify accessory instruments such as matrix, rubber dam, applicators, and explain their purposes.</p> <p>m. Model and explain how to properly operate the oral evacuator.</p>	<u>B12.3</u>	<u>1</u> <u>2</u> <u>5</u> <u>8</u>	<u>1</u> <u>2</u> <u>5</u> <u>8</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u> <u>WS</u> <u>11-12.7</u> <u>SLS</u> <u>11-12.1d</u>	
31. Dental Hand Instruments	CTE - PS	CRP	CTE - AS	CCSS	ISTE
a. Identify the design and purpose of dental instruments commonly used for general		<u>1</u>	<u>1</u>	<u>LS</u>	

<p>restorative procedures.</p> <p>b. Identify the four classifications of dental hand instruments.</p> <p>c. Describe the three parts of a dental hand instrument.</p> <p>d. Identify the examination instruments and their uses.</p> <p>e. Identify types of hand-cutting instruments, their three parts, and their uses.</p> <p>f. Identify the types of restorative instruments and their uses.</p> <p>g. Identify accessory instruments and items used in general dentistry.</p> <p>h. Describe the use of preset trays and tubs in dentistry.</p> <p>i. Explain the theory of placing an instrument in a specific sequence.</p> <p>j. Describe the proper care of dental instruments.</p>		<u>2</u> <u>5</u>	<u>2</u> <u>5</u> <u>11</u>	<u>9-10</u> <u>11-12.6</u> <u>WS</u> <u>11-12.7</u>	
<p>32. Dental Handpieces and Accessories</p>	<p>CTE - PS</p>	<p>CRP</p>	<p>CTE - AS</p>	<p>CCSS</p>	<p>ISTE</p>
<p>a. Know and understand the purpose and care of dental rotary equipment.</p> <p>b. Demonstrate and explain proper use of rotary instruments.</p> <p>c. Describe low-speed handpieces and attachments and list their uses.</p> <p>d. Describe high-speed handpieces and their uses.</p> <p>e. Identify the parts of a bur.</p> <p>f. Describe the composition, shape, and use of the carbide and diamond burs.</p> <p>g. Identify dental handpieces and correctly attach them to the dental unit.</p> <p>h. Identify accessories and correctly attach them to the low-speed handpiece.</p> <p>i. Identify rotary cutting instruments and correctly attach them to the appropriate dental handpiece.</p>		<u>1</u> <u>2</u> <u>5</u> <u>8</u>	<u>1</u> <u>2</u> <u>5</u> <u>8</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u> <u>WS</u> <u>11-12.7</u> <u>SLS</u> <u>11-12.1d</u>	
<p>33. Anesthesia and Pain Control</p>	<p>CTE - PS</p>	<p>CRP</p>	<p>CTE - AS</p>	<p>CCSS</p>	<p>ISTE</p>
<p>a. Know and understand the various psychological, physiological, and chemical approaches to the prevention and treatment of preoperative, operative, and postoperative anxiety and pain.</p> <p>b. Describe local anesthesia setup, equipment, and general concepts related to injection techniques.</p> <p>c. Explain the importance of pain control in dentistry.</p> <p>d. Describe how to prepare and properly assemble a syringe.</p> <p>e. Explain the composition and application of topical and local anesthetic agents.</p> <p>f. Describe noninvasive and technology-supported pain control options used in dentistry, when applicable.</p> <p>g. Describe nitrous oxide/oxygen sedation and its use in dentistry.</p> <p>h. Explain the importance of reducing the dental team's exposure to nitrous oxide.</p> <p>i. Explain intravenous sedation and its use in dentistry.</p> <p>j. Explain general anesthesia and its use in dentistry.</p>	<p><u>B12.3</u></p>	<u>1</u> <u>2</u> <u>5</u> <u>8</u>	<u>1</u> <u>2</u> <u>5</u> <u>8</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u> <u>WS</u> <u>11-12.7</u> <u>SLS</u> <u>11-12.1d</u>	

<ul style="list-style-type: none"> k. Demonstrate placement of topical anesthetic as permitted by law, facility policy, and supervision requirements. l. Demonstrate preparation and management of the local anesthetic setup within allowable duties. m. Model the dental assistant’s role in preparing for and supporting local anesthesia procedures using simulation equipment, as appropriate and within allowable duties. 					
34. Moisture Control	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Explain the responsibilities of the registered dental assistant in maintaining moisture control during a dental procedure. b. Describe techniques, equipment, and materials used to control moisture. c. List isolation techniques used to decrease moisture during dental procedures. d. Describe the two types of oral evacuation systems used in dentistry. e. Describe the grasp and positioning of the high-volume evacuation tip. f. Discuss the use of the air-water syringe. g. Describe the dental dam and its role in moisture control. h. List the equipment and supplies for dental dam application. i. Describe the special preparation and placement of the dental dam. j. Compare and contrast limited-area and full-mouth rinses. k. Identify the equipment and supplies used for dental dam application. 	B12.3	<u>1</u> <u>2</u> <u>5</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	LS 9-10 11-12.6 WS 11-12.7	
35. Dental Specialties	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Evaluate and describe the role of a registered dental assistant in various dental specialties. b. Understand and explain the principles and procedures associated with dental specialties. c. Identify current dental specialties and describe general education and training requirements for each specialty. d. Recognize and describe the equipment and instruments used in dental specialty practices. e. Describe the role of the registered dental assistant in specialty practices such as oral surgery, orthodontics, endodontics, periodontics, prosthodontics, pediatric dentistry, dental public health, and other current specialty areas. 	B12.3	<u>1</u> <u>2</u> <u>5</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	LS 9-10 11-12.6 WS 11-12.7	
36. CPR and Assisting in Medical Emergencies	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Describe emergency procedures and understand emergency principles. b. Describe the common signs and symptoms of an emergency and how to recognize them. c. Prepare for and/or complete Basic Life Support (BLS) certification, as required for the course or licensure pathway. d. Describe and perform the procedures to follow during a dental or medical emergency. 	B12.3	<u>1</u> <u>2</u> <u>5</u> <u>8</u>	<u>1</u> <u>2</u> <u>5</u> <u>8</u> <u>11</u>	LS 9-10 11-12.6 WS 11-12.7	

<ul style="list-style-type: none"> e. Demonstrate proper techniques to relieve foreign body airway obstruction in adults, children, and infants. f. Demonstrate appropriate responses to medical emergencies such as chest pain, stroke, breathing problems, allergic reactions, shock, cardiac arrest, anxiety or syncope, hemorrhage, and seizures. g. Demonstrate the proper treatment to the patient who is experiencing a diabetic emergency. h. Identify patient symptoms requiring the use of cardiopulmonary resuscitation (CPR). i. Describe and perform cardiopulmonary resuscitation (CPR). j. Describe and demonstrate the proper use of oxygen ventilation systems in a dental area. k. Identify and explain the correct use of emergency equipment and supplies, including the automated external defibrillator (AED), oxygen equipment, and infection control supplies. 				<p>SLS 11-12.1d</p>	
<p>37. Vital Signs</p>	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Describe the purpose and procedures for obtaining vital signs. b. Identify the four vital signs routinely taken in the dental office. c. Describe how and explain why temperature, blood pressure, pulse, and respiration are measured. d. Discuss how to obtain vital signs in a dental office. e. Describe the skills necessary in obtaining vital signs. f. Identify normal, elevated, and potentially unsafe blood pressure ranges that may require reporting to the supervising dentist or provider according to facility policy. 	<p>B12.3</p>	<p><u>1</u> <u>2</u> <u>5</u></p>	<p><u>1</u> <u>2</u> <u>5</u> <u>11</u></p>	<p>LS 9-10 11-12.6</p> <p>WS 11-12.7</p>	
<p>38. Dental Liners, Bases, and Bonding Systems</p>	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Identify materials and procedures for using liners, varnishes, dentin sealers, bases, and bonding materials that provide protection to the pulp and surrounding structures during restorative procedures. b. Explain how preparation for a tooth is determined. c. Discuss how the sensitivity of a tooth determines what type of dental material is selected for a procedure. d. Discuss how and why cavity liners, varnishes, dentin sealers, and dental bases are used in restoring tooth structure. e. Describe the etching process of a tooth and its importance in the bonding of tooth and material. f. Describe the bonding systems and how they provide a better adherence of dental materials to the tooth structure. g. Explain how to prepare liners, varnishes, dentin sealers, bases, and bonding materials following manufacturer guidelines and facility procedures. 	<p>B12.3</p>	<p><u>1</u> <u>2</u> <u>5</u></p>	<p><u>1</u> <u>2</u> <u>5</u> <u>11</u></p>	<p>LS 9-10 11-12.6</p> <p>WS 11-12.7</p>	
<p>39. Restorative and Esthetic Dental Materials</p>	CTE - PS	CRP	CTE - AS	CCSS	ISTE

<ul style="list-style-type: none"> a. Understand the general characteristics and selection criteria of dental materials. b. Understand the preparation of the restorative and esthetic materials for a procedure. c. Identify the setup for each material and follow the manufacturer’s recommended proportions and mixing techniques. d. List the properties of dental materials and ways that they affect their application. e. Compare and contrast direct and indirect restorative materials and describe their uses. f. Describe the properties of common restorative and esthetic dental materials, including amalgam, composite resin, glass ionomer, temporary restorative materials, gold alloys, and porcelain, and explain their applications in restoring teeth. g. Describe digital dentistry and esthetic procedure support concepts, including bleaching materials, nonlaser light-curing devices, intraoral scanning, CAD/CAM-related restorations, and the dental assistant’s role within allowable duties. h. Explain how to mix and transfer amalgam. i. Describe how to prepare composite resin material. 	B12.3	<u>1</u> <u>2</u> <u>5</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	LS 9-10 11-12.6 WS 11-12.7	
40. Dental Cements	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Identify the properties, characteristics, and intended uses of Type I, II, and III dental cements. b. Explain the possible causes of cementing errors. c. Describe luting cements and differentiate between permanent and temporary cements. d. Discuss the factors that influence luting cements. e. Compare and contrast ZOE type I and ZOE type II and their uses. f. Compare and contrast type I and type II Zinc phosphate cement. g. Explain how to mix and prepare zinc-oxide-eugenol, polycarboxylate, glass ionomer, and resin-based cement materials according to manufacturer guidelines. 	B12.3	<u>1</u> <u>2</u> <u>5</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	LS 9-10 11-12.6 WS 11-12.7	
41. Impression Materials	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Identify the characteristics of various types of impression materials. b. Describe how impression materials are used and the proper mixing techniques. c. Identify the three types of impressions taken in a dental office. d. Compare and contrast preliminary and final impression materials. e. Describe the types of impression trays and their characteristics of use. f. Discuss hydrocolloid and elastomeric impression materials and their uses, mixing techniques, and application. g. Describe the importance of an occlusal registration and its use in a procedure. h. Explain how to take a maxillary and mandibular preliminary impression. i. Demonstrate how to take an intraoral impression for a non-prosthetic appliance, as permitted by law, facility policy, and supervision requirements. j. Mix a paste final impression material. 	B12.3	<u>1</u> <u>2</u> <u>5</u> <u>8</u>	<u>1</u> <u>2</u> <u>5</u> <u>8</u> <u>11</u>	LS 9-10 11-12.6 WS 11-12.7 SLS 11-12.1d	

<ul style="list-style-type: none"> k. Prepare an automix impression material. l. Take a wax bite. m. Explain a closed bite registration procedure. 					
42. Laboratory Materials and Procedures	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Explain the general functions of a dental office laboratory and basic laboratory procedures. b. Describe dental models and how they are used in dentistry. c. Summarize safety precautions, infection prevention practices, and manufacturer instructions used in the dental laboratory. d. Identify the types of equipment found in a dental laboratory and their uses. e. Describe gypsum products and their role in making dental models. f. Describe the three types of custom impression trays and their use in dentistry. g. Describe the type of dental waxes and their use in dentistry. h. Explain how to mix dental stone. i. Pour a set of dental models using the inverted-pour method. j. Demonstrate and explain how to trim and finish a set of dental models. k. Demonstrate and explain how to construct an acrylic resin custom tray, a light-cured custom tray, and a vacuum-formed custom tray. 		<u>1</u> <u>2</u> <u>5</u> <u>8</u>	<u>1</u> <u>2</u> <u>5</u> <u>8</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u> <u>WS</u> <u>11-12.7</u> <u>SLS</u> <u>11-12.1d</u>	
43. Dental Radiology	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Explain the principles of radiation used to expose, acquire or process, mount, and evaluate dental radiographic images. b. Describe the uses of dental X-rays and their benefits and risks. c. Explain laws, regulations, and safety requirements affecting dental radiography, including applicable California radiation safety requirements. d. Describe the three characteristics of the x-ray beam. e. Demonstrate safe radiography practices. f. Explain the CDC guidelines for infection control in dental radiology. g. Compare and contrast bisecting angle techniques and paralleling intraoral X-ray techniques. h. Describe the parts of an X-ray machine including protective barriers that follow infection control protocol. i. Explain how x-rays are generated in the x-ray tube head. j. Describe the four characteristics (contrast, density, detail, geometric distortion) of an X-ray image. k. Identify the range of kilovoltage and milliamperage required for dental radiography. l. Describe how kilovoltage and milliamperage affect the quality of the x-ray beam. m. Describe the methods of protecting the operator and patient from excess radiation. 	<u>B10.2</u>	<u>1</u> <u>2</u> <u>5</u> <u>8</u> <u>12</u>	<u>1</u> <u>2</u> <u>5</u> <u>8</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u> <u>WS</u> <u>11-12.7</u> <u>SLS</u> <u>11-12.1d</u>	

<ul style="list-style-type: none"> n. Describe the effects of radiation exposure on the human body and identify organs that are sensitive to radiation. o. Describe how x-rays are used to identify lesions. p. Compare and contrast digital radiographic imaging with traditional intraoral radiographic images. q. Describe basic concepts, procedures, advantages, and limitations of intraoral, extraoral, and digital radiography. r. Compare and contrast the advantages and disadvantages of digital imaging. s. Describe techniques to manage patients to produce clinically acceptable radiographs. t. Describe the components of informed consent with regard to dental radiographs. u. Explain radiation safety principles, including ALARA and other current dose-reduction practices used in dental radiography. 					
44. Front Office Management	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Describe the importance of following correct operating procedures in a dental office. b. Explain the significance of maintaining accurate and complete records in a dental office. c. Describe the duties of an administrative/business assistant in a dental office. d. Describe the purpose of dental records such as treatment charts, financial forms, x-rays, and case histories. e. Explain and identify uses of dental forms and systems such as insurance forms, prescriptions, recall notices, and electronic or paper-based records. f. Describe why the operating procedure manual is essential for a dental practice to run smoothly. g. Identify and discuss the types of appointments needed for different types of dental procedures. h. Explain how to schedule appointments for major and minor procedures. i. Identify dental forms such as insurance, prescriptions, and recall. j. Name and explain the basic filing methods used in dental offices. k. Demonstrate proper telephone etiquette for scheduling an appointment, verifying an appointment, and canceling an appointment. l. Describe the management of inventory systems. m. Compare and contrast electronic records and paper-based records. n. Explain how state and federal privacy laws apply to HIPAA compliance and patient confidentiality in dental offices. 	B6.6	1 2 5 8 12	1 2 5 8 11	LS 9-10 11-12.6 WS 11-12.7 SLS 11-12.1d	
45. Patient Medical-Dental History	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Describe the need for and the process of obtaining a medical and dental history. b. Explain the importance of updating the patient's health history at every dental visit. c. Describe the purpose of obtaining a dental patient's health history before dental treatment. 	B4.0	1 2 5	1 2 5	LS 9-10 11-12.6	

<ul style="list-style-type: none"> d. Identify medical areas of importance related to dental care. e. Define prescription, non-prescription, over-the-counter, and controlled medications. f. Describe how chronic illnesses such as heart disease, emphysema, hemorrhagic tendency, and antibiotic sensitivity relate to dental care. g. Identify common medications that can affect dental procedures. 			<u>11</u>	<u>WS</u> <u>11-12.7</u>	
46. Patient Record	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Explain the importance of the patient record, its legal significance, and how the dentist uses it to manage patient treatment. b. Explain why patient records must be accurate, complete, and legible. c. Demonstrate the ability to read a dental chart. d. Identify and describe the two major groups of dental records. e. Classify the records that are usually kept in the “patient chart.” f. Identify the personal information forms that must be gathered from the patient. g. Identify diagnostic information the registered dental assistant may collect or document about the patient within allowable duties and facility policy. h. Describe how corrections or changes should be made in patient records and explain the importance of accurate documentation. i. Identify how a patient’s record can be used as a legal document. j. Describe dental records such as treatment charts, financial forms, radiographs, and case histories. k. Compare and contrast the advantages and disadvantages of paper-based and electronic patient records. l. Explain why it is important to complete the patient record during the patient’s visit. m. Demonstrate knowledge of periodontal charting. n. Document and record clinical findings, digital images, caries detection findings, pulp vitality testing findings, and other dental record information as directed and within allowable duties. 	<u>B4.4</u>	<u>1</u> <u>2</u> <u>5</u>	<u>1</u> <u>2</u> <u>5</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u> <u>WS</u> <u>11-12.7</u>	
47. Dental Assistant Externship	CTE - PS	CRP	CTE - AS	CCSS	ISTE
<ul style="list-style-type: none"> a. Demonstrate and practice proper chairside assisting in a dental setting under appropriate supervision. b. Assist with obtaining or updating a medical history from a dental patient under appropriate supervision and facility policy. c. Demonstrate and practice dental charting. d. Demonstrate and practice seating a patient in a dental chair. e. Demonstrate and practice adjusting the dental unit and light. f. Demonstrate and practice placement of the oral evacuator. g. Demonstrate and practice passing the instruments to the dentist. 		<u>1</u> <u>2</u> <u>5</u> <u>8</u>	<u>1</u> <u>2</u> <u>5</u> <u>8</u> <u>11</u>	<u>LS</u> <u>9-10</u> <u>11-12.6</u> <u>WS</u> <u>11-12.7</u> <u>SLS</u> <u>11-12.1d</u>	

<p>h. Demonstrate and practice mixing materials such as bases, liners, alginate, amalgam, and composites according to manufacturer guidelines and facility procedures.</p>					
<p>i. Demonstrate and practice instrument processing, sterilization, and infection prevention procedures according to facility policy and applicable regulations.</p>					

Standards Alignment

The curricula have been aligned with the CTE Model Curriculum Standards released in 2013. Each industry sector was updated to meet the increased rigor and relevancy requirements of the Common Core State Standards. The curriculum also includes the new Standards for Career Ready Practices.

Standards for Career Ready Practice

1. *Apply appropriate technical skills and academic knowledge.*
2. *Communicate clearly, effectively, and with reason.*
3. *Develop an education and career plan aligned with personal goals.*
4. *Apply technology to enhance productivity.*
5. *Utilize critical thinking to make sense of problems and persevere in solving them.*
6. *Practice personal health and understand financial literacy.*
7. *Act as a responsible citizen in the workplace and the community.*
8. *Model integrity, ethical leadership, and effective management.*
9. *Work productively in teams while integrating cultural and global competence.*
10. *Demonstrate creativity and innovation.*
11. *Employ valid and reliable research strategies.*
12. *Understand the environmental, social, and economic impacts of decisions.*

CTE Anchor Standards—Common Core English Language Arts Alignment

Anchor Standard 1: Academics

Analyze and apply appropriate academic standards required for successful industry sector pathway completion leading to postsecondary education and employment. Refer to the industry sector alignment matrix for identification of standards. Note: alignment listed within each sector.

Anchor Standard 2: Communications

Language Standard: Acquire and accurately use general academic and domain-specific words and phrases sufficient for reading, writing, speaking, and listening at the (career and college) readiness level; demonstrate independence in gathering vocabulary knowledge when considering a word or phrase important to comprehension or expression. LS 9-10, 11-12.6

Anchor Standard 3: Career Planning and Management

Speaking and Listening Standard: Integrate multiple sources of information presented in diverse formats and media (e.g., visually, quantitatively, orally) in order to make informed decisions and solve problems, evaluating the credibility and accuracy of each source and noting any discrepancies among the data. SLS 11-12.2

Anchor Standard 4: Technology

Writing Standard: Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments and information.

Anchor Standard 5: Problem Solving and Critical Thinking

Writing Standard: Conduct short as well as more sustained research projects to answer a question (including a self-generated question) or solve a problem, narrow, or broaden the inquiry when appropriate, and synthesize multiple sources on the subject, demonstrating understanding of the subject under investigation. WS 11-12.7

Anchor Standard 6: Health and Safety

Reading Standards for Science and Technical Subjects: Determine the meaning of symbols, keywords, and other domain-specific words and phrases as they are used in a specific scientific or technical context. RSTS 9-10, 11-12.4

Anchor Standard 7: Responsibility and Flexibility

Speaking and Listening Standard: Initiate and participate effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners, building on others' ideas and expressing their own clearly and persuasively. SLS 9-10, 11-12.1

Anchor Standard 8: Ethics and Legal Responsibilities

Speaking and Listening Standard: Respond thoughtfully to diverse perspectives; synthesize comments, claims, and evidence made on all sides of an issue; resolve contradictions when possible; and determine what additional information or research is required to deepen the investigation or complete the work. SLS 11-12.1d

Anchor Standard 9: Leadership and Teamwork

Speaking and Listening Standard: Work with peers to promote civil, democratic discussions and decision making; set clear goals and deadlines; and establish individual roles as needed. SLS 11-12.1b

Anchor Standard 10: Technical Knowledge and Skills

Writing Standard: Use technology, including the Internet, to produce, publish, and update individual or shared writing products in response to ongoing feedback, including new arguments or information. WS 11-12.6

Anchor Standard 11: Demonstration and Application

Demonstrate and apply the knowledge and skills contained in the industry-sector anchor standards, pathway standards, and performance indicators in the classroom, laboratory, and workplace settings, and the career technical student organization. Note: no alignment evident for this standard. WS 11-12.6

CTE Model Curriculum Standards—Industry Sectors and Pathways

HSMT, Health Science and Medical Technology

B. Patient Care Pathway

- B1.2 *Understand the range between prevention, diagnosis, pathology, and treatment procedures.*
- B1.4 *Illustrate the value of preventive and early intervention in relationship to health care practices.*
- B2.0 *Understand the basic structure and function of the human body and relate normal function to common disorders.*
- B2.1 *Know basic human body structure and function in relationship to specific care between prevention, diagnosis, pathology, and treatment.*
- B2.2 *Describe basic stages of growth and development.*
- B2.3 *Recognize common disease and disorders of the human body.*
- B2.4 *Compare normal function of the human body to the diagnosis and treatment of disease and disorders.*
- B4.0 *Recognize and practice components of an intake assessment relevant to patient care.*
- B4.4 *Collect and synthesize information or data about the patient’s symptoms and vital signs.*
- B5.0 *Know the definition, spelling, pronunciation, and use of appropriate terminology in the health care setting.*
- B5.1 *Use medical terminology in patient care appropriate to communicate information and observations.*
- B5.3 *Use roots, prefixes, and suffixes to communicate information.*
- B5.6 *Demonstrate the correct pronunciation of medical terms.*
- B6.0 *Communicate procedures and goals to patients using various communication strategies to respond to questions and concerns.*
- B6.6 *Maintain written guidelines of the Health Insurance Portability and Accountability Act (HIPAA) in all communications.*
- B8.0 *Demonstrate the principles of body mechanics as they apply to the positioning, transferring, and transporting of patients.*
- B9.0 *Implement wellness strategies for the prevention of injury and disease.*
- B9.1 *Know and implement practices to prevent injury and protect health for self and others.*
- B9.2 *Determine effective health and wellness routines for health care workers (i.e., stress management, hygiene, diet, rest, and drug use).*
- B9.3 *Identify practices to prevent injuries and protect health, for self and others.*
- B9.5 *Identify alternative/complementary health practices as used for injury and disease prevention.*
- B10.0 *Comply with protocols and preventative health practices necessary to maintain a safe and healthy environment for patients, health care workers, coworkers, and self within the health care setting.*
- B10.1 *Describe the infection control cycle with consideration of the various types of microorganisms.*
- B10.2 *Demonstrate use of facility policies and procedures of infection control while performing patient care.*
- B10.3 *Evaluate potential causes and methods of transmitting infections and how to apply standard precautionary guidelines.*
- B10.4 *Demonstrate the use of appropriate personal protective equipment (PPE).*
- B10.5 *Practice proper hand hygiene.*
- B10.6 *Use various manual and mechanical decontamination and sterilization techniques and procedures.*
- B11.0 *Comply with hazardous waste disposal policies and procedures, including documentation, to ensure that regulated waste is handled, packaged, stored, and disposed of in accordance with federal, state, and local regulations.*

- B11.3 Adhere to the health care setting's waste management program (e.g., recycling and reduction of regulated medical, solid, hazardous, chemical, and radioactive waste materials).*
- B12.0 Adhere to the roles and responsibilities, within the scope of practice, that contribute to the design and implementation of treatment planning.*
- B12.1 Understand scope of practice and related skills within prevention, diagnosis, pathology, and treatment occupations.*
- B12.2 Describe the various roles and responsibilities of health care workers as team members in an integrated health care delivery system.*
- B12.3 Demonstrate the knowledge and delivery of specific skills and procedures as outlined within the scope of practice appropriate for patient care in prevention, diagnosis, pathology, and treatment.*

ISTE Standards for Students

1. Empowered Learner- Students leverage technology to take an active role in choosing, achieving, and demonstrating competency in their learning goals, informed by the learning sciences.

- a) Students articulate and set personal learning goals, develop strategies leveraging technology to achieve them, and reflect on the learning process itself to improve learning outcomes.*
- b) Students build networks and customize their learning environments in ways that support the learning process.*
- c) Students use technology to seek feedback that informs and improves their practice and to demonstrate their learning in a variety of ways*
- d) Students understand the fundamental concepts of technology operations, demonstrate the ability to choose, use and troubleshoot current technologies and are able to transfer their knowledge to explore emerging technologies.*

2. Digital Citizen- Students recognize the rights, responsibilities, and opportunities of living, learning, and working in an interconnected digital world, and they act and model in ways that are safe, legal, and ethical.

- a) Students cultivate and manage their digital identity and reputation and are aware of the permanence of their actions in the digital world.*
- b) Students engage in positive, safe, legal, and ethical behavior when using technology, including social interactions online or when using networked devices.*
- c) Students demonstrate an understanding of and respect for the rights and obligations of using and sharing intellectual property.*
- d) Students manage their personal data to maintain digital privacy and security and are aware of data-collection technology used to track their navigation online.*

3. Knowledge Constructor- Students critically curate a variety of resources using digital tools to construct knowledge, produce creative artifacts, and make meaningful learning experiences for themselves and others.

- a) Students plan and employ effective research strategies to locate information and other resources for their intellectual or creative pursuits.*
- b) Students evaluate the accuracy, perspective, credibility, and relevance of information, media, data, or other resources.*
- c) Students curate information from digital resources using a variety of tools and methods to create collections of artifacts that demonstrate meaningful connections or conclusions.*
- d) Students build knowledge by actively exploring real-world issues and problems, developing ideas and theories, and pursuing answers and solutions.*

4. Innovative Designer- Students use a variety of technologies within a design process to identify and solve problems creating new, useful, or imaginative solutions.

- a) Students know and use a deliberate design process for generating ideas, testing theories, creating innovative artifacts, or solving authentic problems.*
- b) Students select and use digital tools to plan and manage a design process that considers design constraints and calculated risks.*
- c) Students develop, test, and refine prototypes as part of a cyclical design process.*
- d) Students exhibit a tolerance for ambiguity, perseverance, and the capacity to work with open-ended problems.*

5. Computational Thinker- Students develop and employ strategies for understanding and solving problems in ways that leverage the power of technological methods to develop and test solutions.

- a) Students formulate problem definitions suited for technology-assisted methods such as data analysis, abstract models, and algorithmic thinking in exploring and finding solutions.*
- b) Students collect data or identify relevant data sets, use digital tools to analyze them, and represent data in various ways to facilitate problem-solving and decision-making.*
- c) Students break problems into component parts, extract key information, and develop descriptive models to understand complex systems or facilitate problem-solving.*
- d) Students understand how automation works and use algorithmic thinking to develop a sequence of steps to create and test automated solutions.*

6. Creative Communicator- Students communicate clearly and express themselves creatively for a variety of purposes using platforms, tools, styles, formats, and digital media appropriate for their goals.

a) Students choose the appropriate platforms and tools for meeting the desired objectives of their creation or communication.

b) Students create original works or responsibly repurpose or remix digital resources into new creations.

c) Students communicate complex ideas clearly and effectively by creating or using a variety of digital objects such as visualizations, models, or simulations.

d) Students publish or present content that customizes the message and medium for their intended audiences.

7. Global Collaborator- Students use digital tools to broaden their perspectives and enrich their learning by collaborating with others and working effectively in teams locally and globally.

a) Students use digital tools to connect with learners from a variety of backgrounds and cultures, engaging with them in ways that broaden mutual understanding and learning.

b) Students use collaborative technologies to work with others, including peers, experts, or community members, to examine issues and problems from multiple viewpoints.

c) Students contribute constructively to project teams, assuming various roles and responsibilities to work effectively toward a common goal.

d) Students explore local and global issues and use collaborative technologies to work with others to investigate solutions.