

**Florida Department of Education
Curriculum Framework**

Program Title: Dental Aide
Program Type: Career Preparatory
Career Cluster: Health Science

Secondary – Career Preparatory

Program Number	8417140
CIP Number	0351060103
Grade Level	9-12
Standard Length	3 credits
Teacher Certification	Refer to the <u>Program Structure</u> section.
CTSO	HOSA
SOC Codes (all applicable)	31-9099 -- Healthcare Support Workers, All Other
CTE Program Resources	http://www.fldoe.org/academics/career-adult-edu/career-tech-edu/program-resources.stml

Purpose

This program offers a sequence of courses that provides coherent and rigorous content aligned with challenging academic standards and relevant technical knowledge and skills needed to prepare for further education and careers in the Health Science career cluster; provides technical skill proficiency, and includes competency-based applied learning that contributes to the academic knowledge, higher-order reasoning and problem-solving skills, work attitudes, general employability skills, technical skills, and occupation-specific skills, and knowledge of all aspects of Health Science career cluster.

This program is designed to provide classroom theory and practical application in tasks related to dental office asepsis and sterilization and disinfection procedures in the dental environment. It is designed to prepare students for employment as dental aides specializing as dental sterilization technicians (industry title) SOC 31-9099 (Healthcare Support Workers, all other) in a dental office or clinic, or to pursue advanced postsecondary dental science education.

Additional Information relevant to this Career and Technical Education (CTE) program is provided at the end of this document.

Program Structure

This program is a planned sequence of instruction totaling three credits. The two credit Health Science Core (Health Science Anatomy & Physiology 8417100 and Health Science Foundations 8417110) is required as a prerequisite for all programs and options. Secondary students completing the two required core courses will not have to repeat the core in postsecondary.

To teach the courses listed below, instructors must hold at least one of the teacher certifications indicated for that course.

The following table illustrates the secondary program structure:

Course Number	Course Title	Teacher Certification	Length	SOC Code	Level	Graduation Requirement
8417100	Health Science Anatomy and Physiology	ANY HEALTH OCCUP G (See DOE approved list)	1 credit	31-9099	3	EQ
8417110	Health Science Foundations		1 credit	31-9099	3	
8417141	Dental Aide 3	DENTL ASST @7 7G	1 credit	31-9099	3	

(Graduation Requirement Abbreviations- EQ= Equally Rigorous Science, PA= Practical Arts, EC= Economics)

Common Career Technical Core – Career Ready Practices

Career Ready Practices describe the career-ready skills that educators should seek to develop in their students. These practices are not exclusive to a Career Pathway, program of study, discipline or level of education. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

1. Act as a responsible and contributing citizen and employee.
2. Apply appropriate academic and technical skills.
3. Attend to personal health and financial well-being.
4. Communicate clearly, effectively and with reason.
5. Consider the environmental, social and economic impacts of decisions.
6. Demonstrate creativity and innovation.
7. Employ valid and reliable research strategies.
8. Utilize critical thinking to make sense of problems and persevere in solving them.
9. Model integrity, ethical leadership and effective management.
10. Plan education and career path aligned to personal goals.
11. Use technology to enhance productivity.
12. Work productively in teams while using cultural/global competence.

Standards

After successfully completing this program, the student will be able to perform the following:

Standards 1-27 encompass the Health Science Core:

- 01.0 Analyze and interpret an overview of the human body, including organization and chemical process.
- 02.0 Apply correct medical terminology relating to body structure and function within a real-world application.
- 03.0 Evaluate cells and tissues microscopically and macroscopically and relate their specialized functions.
- 04.0 Analyze the integumentary system in relation to health and disease.
- 05.0 Analyze the skeletal system in relation to health and disease.
- 06.0 Analyze the muscular system in relation to health and disease.
- 07.0 Analyze the nervous system in relation to health and disease.
- 08.0 Analyze the endocrine system in relation to health and disease.
- 09.0 Analyze the cardiovascular/circulatory system in relation to health and disease.
- 10.0 Analyze the lymphatic and immune systems in relation to health and disease.
- 11.0 Analyze the respiratory system in relation to health and disease.
- 12.0 Analyze the digestive system in relation to health and disease.
- 13.0 Analyze the urinary system in relation to health and disease.
- 14.0 Analyze both the male and female reproductive systems in relation to health and disease.
- 15.0 Identify and explain factors relating to genetics and disease.
- 16.0 Evaluate and apply the principles of disease transmission and control to real-world scenarios.
- 17.0 Demonstrate knowledge of the healthcare delivery system and health occupations.
- 18.0 Demonstrate the ability to communicate and use interpersonal skills effectively.
- 19.0 Demonstrate legal and ethical responsibilities.
- 20.0 Demonstrate an understanding of and apply wellness and disease concepts.
- 21.0 Recognize and practice safety and security procedures.
- 22.0 Recognize and respond to emergency situations.
- 23.0 Recognize and practice infection control procedures.
- 24.0 Demonstrate an understanding of information technology applications in healthcare.
- 25.0 Demonstrate employability skills.
- 26.0 Demonstrate knowledge of blood borne diseases, including HIV/AIDS.
- 27.0 Apply basic math and science skills.

Standards 31-43 encompass competencies specific to Dental Aide 3:

- 28.0 Use dental terminology.
- 29.0 Identify structures and explain functions and pathologies of dental anatomy.
- 30.0 Identify disease prevention and perform infection control procedures.
- 31.0 Describe the legal and ethical responsibilities of the dental health care worker.
- 32.0 Identify, describe, and maintain dental instruments and equipment.

- 33.0 Identify properties and uses of dental materials which include gypsum, restorative material, acrylics, dental cements, impression materials and waxes.
- 34.0 Describe basic dental laboratory procedures.
- 35.0 Describe dental assisting duties.
- 36.0 Identify specialty dental procedures.
- 37.0 Identify dental business office procedures.

**Florida Department of Education
Student Performance Standards**

Health Science Core:

The first two courses in this program are referred to as the Health Science Core and consist of the courses Health Science Anatomy & Physiology (8417100) and Health Science Foundations (8417110). To ensure consistency whenever these courses are offered, the standards and benchmarks for the health science core have been placed in a separate document.

You can access the course outline, standards and benchmarks by visiting this link:

<https://www.fldoe.org/core/fileparse.php/20062/urlt/health-sci-core-secondary-2223.rtf>

The two credit core is required as a prerequisite for all secondary programs except for Practical Nursing and Pharmacy Technician. Secondary students completing the two required courses will not have to repeat the core in postsecondary. When the recommended sequence is followed, the structure allows students to complete at specified courses for employment or remain for advanced training or cross-training.

Course Title: Health Science Anatomy & Physiology
Course Number: 8417100
Course Credit: 1

Course Description:

This course is part of the secondary Health Core consisting of an overview of the human body, both structurally and functionally with emphasis on the pathophysiology and transmission of disease. Medical terminology is an integral part of the course.

The course Anatomy and Physiology (2000350) or Anatomy and Physiology Honors (2000360) may be substituted for the course Health Science Anatomy & Physiology (8417100).

The course Health Science Anatomy & Physiology (8417100) is designated as an equally rigorous (EQ) science credit.

Course Title: Health Science Foundations
Course Number: 8417110
Course Credit: 1

Course Description:

This course is part of the Secondary Health Core designed to provide the student with an in depth knowledge of the health care system and associated occupations. Emphasis is placed on communication and interpersonal skills, use of technology, ethics and the development of critical thinking and problem solving skills. Students may shadow professionals throughout the course.

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Student Performance Standards

Course Title: Dental Aide 3
Course Number: 8417141
Course Credit: 1

Course Description:

This course provides classroom theory and practical application in tasks related to dental office asepsis and sterilization and disinfection procedures in the dental environment. It is designed to prepare completers for employment as dental aides specializing as dental sterilization technicians. It also provides an introduction to dentistry and dental assisting.

CTE Standards and Benchmarks	
28.0	Use dental terminology. - The student will be able to:
28.01	Identify and define common dental terms.
28.02	Demonstrate the use of proper dental terminology in the dental environment.
29.0	Identify structures and explain functions and pathologies of dental and general head and neck anatomy. - The student will be able to:
29.01	Identify structures and functions of head and neck anatomy including bones, muscles, sinuses, salivary glands, nerves and blood vessels. Identify embryonic development of head, oral cavity, and teeth.
29.02	Identify teeth and their landmarks.
29.03	Describe the histological components of the head, oral cavity, and elements of the teeth and supporting structures.
29.04	Recognize and describe oral pathological conditions.
30.0	Identify principles of microbiology and disease prevention and perform infection control procedures. - The student will be able to:
30.01	Differentiate between pathogenic and non-pathogenic microorganisms.
30.02	Describe pathogens and modes of disease transmission.
30.03	Differentiate between aseptic and non-aseptic environments.
30.04	Perform aseptic handwashing technique.
30.05	Describe and apply methods of cleaning, disinfection and sterilization.

CTE Standards and Benchmarks

30.06	Identify chemicals and their uses for controlling the spread of disease in the dental environment.
30.07	Identify and practice the current CDC guidelines for infection control in dental healthcare settings.
30.08	Describe the duties of the dental office safety coordinator.
30.09	Identify areas of the OSHA Blood borne Pathogens Standard (29CFR-1910.1030) applicable to the dental office environment.
31.0	Describe the legal and ethical responsibilities of the dental health care worker. - The student will be able to:
31.01	Define commonly used legal vocabulary relating to dentistry.
31.02	Describe legal and ethical consideration/obligations in the dental team-patient relationship.
31.03	Explain risk management.
31.04	Identify areas of Florida Statute 466 and Rule 64B5-16 FAC applicable to practice by the dental health workers.
32.0	Identify, describe, and maintain dental instruments and equipment. - The student will be able to:
32.01	Identify various types, functions, and operations of dental operator and laboratory equipment.
32.02	Identify types and functions of operative, restorative, surgical, prosthodontic, orthodontic and endodontic dental instruments.
32.03	Maintain dental operator equipment-and instruments.
32.04	Identify types and functions of specific dental hygiene instruments with emphasis on category rather than individual instruments.
33.0	Identify properties and uses of dental materials which include gypsum, restorative material, acrylics, dental cements, impression materials, and waxes. - The student will be able to:
33.01	Demonstrate an understanding of the composition of dental materials, their physical properties and chemical properties and the manner in which the properties relate to manipulation.
33.02	Describe the manipulative skills necessary to properly prepare dental materials for use both intraorally and extra orally.
33.03	Identify the primary objectives of the Council on Dental Materials and Devices of the American Dental Association.
33.04	Identify organizations responsible for establishing standards for dental materials.
33.05	Describe the physical conditions in the oral cavity which influence the selection of dental materials.
33.06	Describe the biological characteristics of dental materials which may limit their use in the oral cavity.
33.07	List factors which must be considered when selecting dental materials.

CTE Standards and Benchmarks

33.08	Define terms related to dental materials and science.
34.0	Describe basic dental laboratory procedures. - The student will be able to:
34.01	Identify properties and manipulate gypsum.
34.02	Identify properties and manipulate impression materials.
34.03	Identify properties and manipulate extra orally used waxes.
34.04	Perform laboratory infection control.
35.0	Describe dental assisting duties. - The student will be able to:
35.01	Describe and demonstrate procedures used to evacuate and maintain the operating field.
35.02	Assemble instruments for general/and specialty dental procedures.
36.0	Identify specialty dental procedures. - The student will be able to:
36.01	Identify and describe oral maxillofacial surgery.
36.02	Identify and describe orthodontics.
36.03	Identify and describe periodontics.
36.04	Identify and describe prosthodontics.
36.05	Identify and describe pedodontics.
36.06	Identify and describe endodontics.
36.07	Identify and describe public health dentistry.
37.0	Identify dental business office procedures. - The student will be able to:
37.01	Describe appointment control.
37.02	Describe an active recall system.
37.03	Describe steps for maintaining accurate patient records.
37.04	Describe steps for maintaining patient financial records and collecting fees.

CTE Standards and Benchmarks

37.05 Describe methods of dental office inventory control.

37.06 Describe public relations responsibilities of the secretary/receptionist.

37.07 Identify skills required for operating on office equipment.

37.08 Describe an optimal dental office environment.

Additional Information

Laboratory Activities

Laboratory investigations that include scientific inquiry, research, measurement, problem solving, emerging technologies, tools and equipment, as well as, experimental, quality, and safety procedures are an integral part of this career and technical program/course. Laboratory investigations benefit all students by developing an understanding of the complexity and ambiguity of empirical work, as well as the skills required to manage, operate, calibrate and troubleshoot equipment/tools used to make observations. Students understand measurement error; and have the skills to aggregate, interpret, and present the resulting data. Equipment and supplies should be provided to enhance hands-on experiences for students

This program requires a clinical component of approximately 50% the length of the courses following the health science core. A portion of the clinical experience can be achieved through simulation when appropriate.

Clinical courses require contact hours in the clinical setting in order to complete the health science program. Hospitals, nursing homes, and other clinical facilities with clinical affiliation agreements limit the number of students that can rotate and/or be on site at one time. Most facilities, including hospitals and nursing homes, limit the number of students to 15. Due to these industry limitations, it is recommended that the student ratio be 15:1 (student/teacher) based on the clinical facilities that students attend to for clinical training.

Academic Alignment

Secondary Career and Technical Education courses are pending alignment to the B.E.S.T. (Benchmarks for Excellent Student Thinking) Standards for English Language Arts (ELA) and Mathematics that were adopted by the State Board of Education in February 2020. Academic alignment is an ongoing, collaborative effort of professional educators that provide clear expectations for progression year-to-year through course alignment. This initiative supports CTE programs by improving student performance through the integration of academic content within CTE courses.

Florida Standards for English Language Development (ELD)

English language learners communicate for social and instructional purposes within the school setting. ELD.K12.SI.1.1

English Language Development (ELD) Standards Special Notes:

Teachers are required to provide listening, speaking, reading and writing instruction that allows English language learners (ELL) to communicate for social and instructional purposes within the school setting. For the given level of English language proficiency and with visual, graphic, or interactive support, students will interact with grade level words, expressions, sentences and discourse to process or produce language necessary for academic success. The ELD standard should specify a relevant content area concept or topic of study chosen by curriculum developers and teachers which maximizes an ELL's need for communication and social skills. To access an ELL supporting document which delineates performance definitions and descriptors, please click on the following link: <http://www.cpalms.org/uploads/docs/standards/eld/SI.pdf>.

For additional information on the development and implementation of the ELD standards, please contact the Bureau of Student Achievement through Language Acquisition at sala@fldoe.org .

Special Notes

Following the completion of the Health Science Core, the student is eligible to take the National Health Care Foundation Skill Standards Assessment with instructor approval and the completion of a portfolio.

This program meets the Department of Health's education requirements for HIV/AIDS, Domestic Violence and Prevention of Medical Errors. Although not a requirement for initial licensure, it is a requirement for renewal, therefore the instructor may provide a certificate for renewal purposes to the student verifying these requirements have been met.

If students in this program are seeking a licensure, certificate or registration through the Department of Health, please refer to 456.0635 F.S. for more information on disqualification for a license, certificate, or registration through the Department of Health.

Career and Technical Student Organization (CTSO)

HOSA: Future Health Professionals is the intercurricular career and technical student organization providing leadership training and reinforcing specific career and technical skills. Career and Technical Student Organizations provide activities for students as an integral part of the instruction offered.

Cooperative Training – OJT

On-the-job training is appropriate but not required for this program. Whenever offered, the rules, guidelines, and requirements specified in the OJT framework apply.

Accommodations

Federal and state legislation requires the provision of accommodations for students with disabilities as identified on the secondary student's Individual Educational Plan (IEP) or 504 plan or postsecondary student's accommodations' plan to meet individual needs and ensure equal access. Accommodations change the way the student is instructed. Students with disabilities may need accommodations in such areas as instructional methods and materials, assignments and assessments, time demands and schedules, learning environment, assistive technology and special communication systems. Documentation of the accommodations requested and provided should be maintained in a confidential file.

In addition to accommodations, some secondary students with disabilities (students with an IEP served in Exceptional Student Education (ESE)) will need modifications to meet their needs. Modifications change the outcomes or what the student is expected to learn, e.g., modifying the curriculum of a secondary career and technical education course. Note: postsecondary curriculum and regulated secondary programs cannot be modified.

Some secondary students with disabilities (ESE) may need additional time (i.e., longer than the regular school year), to master the student performance standards associated with a regular course or a modified course. If needed, a student may enroll in the same career and technical course more than once. Documentation should be included in the IEP that clearly indicates that it is anticipated that the student may need an additional year to complete a Career and Technical Education (CTE) course. The student should work on different competencies and new applications of competencies each year toward completion of the CTE course. After achieving the competencies identified for the year, the student

earns credit for the course. It is important to ensure that credits earned by students are reported accurately. The district's information system must be designed to accept multiple credits for the same course number for eligible students with disabilities.

Additional Resources

For additional information regarding articulation agreements, Bright Futures Scholarships, Fine Arts/Practical Arts Credit and Equivalent Mathematics and Equally Rigorous Science Courses please refer to:

<http://www.fldoe.org/academics/career-adult-edu/career-tech-edu/program-resources.stml>