



INSTRUCTIONAL PACKAGE

DAT 123

Oral Medicine/Oral Biology

Effective Term

Fall 2024/Spring 2025/Summer 2025

INSTRUCTIONAL PACKAGE

Part I: Course Information

Effective Term: Fall 2024/Spring 2025/Summer 2025

COURSE PREFIX: DAT 123

COURSE TITLE: Oral Medicine/Oral Biology

CONTACT HOURS: 3

CREDIT HOURS: 3

RATIONALE FOR THE COURSE:

DAT 123 Oral Medicine/Oral Biology introduces the Expanded Duty Dental Assisting student to the realm of chairside assisting in dentistry and functions the dental assistant performs in the profession of dentistry as it pertains to the their role in assisting the dentist with recognition of oral pathology, recognition and assisting with medical and medical emergencies as well as the dental assistant's role in providing the patient with counseling on medications as they are prescribed by the dentist

COURSE DESCRIPTION:

This course presents a basic study of oral pathology, pharmacology, nutrition, and common emergencies as related to the role of the Dental Assistant.

PREREQUISITES:

DAT 113 Dental Materials

DAT 118 Dental Morphology

DAT 127 Dental Radiology

DAT 154 Clinical Procedures I

DAT 174 Office Rotations

CO-REQUISITES:

DAT 115 Ethics Professionalism

DAT 121 Dental Health Education

DAT 122 Dental Office Management

DAT 177 Dental Office Experience

DAT 183 Specialty Functions

REQUIRED MATERIALS:

Please visit the Bookstore online site for most current textbook information. Use the direct link below to find textbooks.

[BOOKSTORE](#).

Enter the semester, course prefix, number and section when prompted and you will be linked to the correct textbook.

TECHNICAL REQUIREMENTS:

Access to Desire2Learn (D2L), HGTC's learning management system (LMS) used for course materials.

Access to myHGTC portal for student self-services.

College email access – this is the college’s primary official form of communication.

CLASSROOM ETIQUETTE:

As a matter of courtesy to other students and your professor, please turn off cell phones and other communication/entertainment devices before class begins. If you are monitoring for an emergency, please notify your professor prior to class and switch cell phone ringers to vibrate.

***Refer to the HGTC Dental Sciences Program Manual for additional policies on classroom etiquette.**

NETIQUETTE: is the term commonly used to refer to conventions adopted by Internet users on the web, mailing lists, public forums, and in live chat focused on online communications etiquette. For more information regarding Netiquette expectations for distance learning courses, please visit [Online Netiquette](#).

Part II: Student Learning Outcomes

Dental assistants must appreciate their role as a health care provider in a dental office. This role requires the Expanded Duty Dental Assisting student be proficient in the background knowledge to perform clinical dental assisting duties and supportive treatments as it pertains the care of patients during medical and dental emergencies as well explaining the instructions and reasons for the medications prescribed by the dentist. The Expanded Duty Dental Assisting student will also be able to identify normal soft and hard tissue of the oral cavity and to alert the dentist should the patient present with possible abnormal tissues. Therefore, upon completion of the following sections of DAT 123, the Expanded Duty Dental Assisting student will be competent to perform the following:

- 1) Discuss the following pharmacological agents and their actions upon the pathological causes.
 - Analgesics
 - Antibiotics
 - Antihistamines
 - Anesthetics
 - Controlled substances
- 2) Explain the components of a medication prescription.
- 3) Transcribe a medical prescription as directed by a supervising dentist.
- 4) Discuss the changes that affect the normal oral anatomy as it pertains to the following
 - Inflammation and oral lesions
 - Biological agents
 - Physical agents
 - Chemical agents
 - Developmental disturbances
 - Oral lesion related to AIDS, HIV and other viruses
- 5) Discuss the role of the dental assistant in assisting patients who may have various medical and dental emergencies in the dental office.
- 6) Perform various roles in assisting the dentist during various dental or medical emergencies or patients who may have various medical and dental emergencies in the dental office.

COURSE LEARNING OUTCOMES and ASSESSMENTS*:

Module 1

Material Covered: Ch. 4 General Anatomy and Physiology

Assessments: Written Test & Final Exam

Objectives:

1. Use terms presented in this chapter.
2. List the body systems, body planes and directions, and cavities of the body, and describe the structure and function of the cell.
3. Explain the functions and divisions of the skeletal system, list the composition of the bone, and identify the types of joints.
4. List the functions and structure of the following systems: muscular, nervous, endocrine, reproductive, circulatory, digestive, respiratory, lymphatic, immune, integumentary, and urinary.

Module 2

Material Covered: Ch. 13 Special needs and Medically Compromised

Assessments: Written Test & Final Exam

Objectives:

1. Use terms presented in this chapter.
2. Differentiate between developmental and acquired disabilities.
3. Define special needs, the Americans with Disability Act (ADA) and a barrier free environment.
4. Summarize the special care for the patient with disabilities.
5. Describe one- and two-person wheelchair transfers.
6. Discuss dental management of the patient with a sensory disability.
7. Describe potential behavior of a patient with intellectual and developmental disabilities.
8. Describe oral findings of a patient with intellectual and developmental disabilities.
9. Discuss the effects of aging and dental management of the older patient.
10. Describe the cause, characteristics of disorders and diseases that define a patient who is medically compromised.
11. Describe the dental management of disorders and diseases that define a patient who is medically compromised.

Module 3

Material Covered: Ch. 14 Pharmacology

Assessments: Written Test & Final Exam

Objectives:

1. Use terms presented in this chapter.
2. State why it is important for the dental assistant to study pharmacology.
3. Discuss the significance of drug laws.
4. Explain the process of new drug development.
5. Recognize that a drug might be known by several names.
6. Identify the drug references available.
7. Discuss how drug dosages are calculated.
8. Compare and contrast the different routes of drug administration.
9. Outline the steps the body uses to process a drug.

10. Identify the information that belongs in each part of a prescription.
11. Provide the English meanings of the common Latin abbreviations used for prescriptions.
12. Discuss the regulations governing prescription drugs.
13. Recognize the signs of a substance use disorder in a dental patient.
14. Define what is meant by a therapeutic action of a drug.
15. Differentiate among the various types of adverse drug reactions.
16. Discuss the types of drugs commonly administered in a dental office.
17. Compare and contrast aspirin, ibuprofen and acetaminophen.
18. Discuss the dangers of inappropriate use of antibiotics.
19. Discuss the types of drugs commonly prescribed in a dental office.
20. Discuss the drugs that are specific to dental disease.
21. Recognize commonly used dental local anesthetics by name and concentration.
22. Discuss the reasons for selection of a local anesthetic with or without a vasoconstrictor.
23. Recognize medications on the medical history that may impact dental care.
24. Recognize common medications used for the following: cardiovascular disease endocrine disorders psychiatric disorders neurological disorders osteoporosis substance abuse
25. Explain the oral side effects of medications used for: cardiovascular disease endocrine disorders psychiatric disorders neurological disorders osteoporosis cancer chemotherapy
26. Apply treatment modifications for patient management changes for patients taking: cardiovascular drugs endocrine drugs cancer chemotherapy osteoporosis medications Antabuse or methadone.

Module 4

Material Covered: Ch. 15 Medical Emergencies

Assessments: Written Test & Final Exam

Objectives:

1. Use terms provided in this chapter.
2. Discuss prevention of a medical emergency through collection of an accurate patient history.
3. Recognize signs of an anxious or fearful patient.
4. Discuss ASA classifications of medical risk.
5. Explain prevention of a medical emergency through staff preparation.
6. Explain prevention of a medical emergency through office preparation.
7. Compare and contrast the management of postural hypotension and vasovagal syncope.
8. Compare and contrast the signs and symptoms of postural hypotension and vasovagal syncope.
9. Identify the predisposing factors to postural hypotension.
10. Compare and contrast the signs and symptoms of asthma and hyperventilation.
11. Compare and contrast the management of asthma and hyperventilation.
12. Discuss the management of chronic obstructive pulmonary disease.
13. Define adrenal disorders.
14. Discuss the management of an acute adrenal crisis in the dental office.
15. Describe the anatomical structure of the thyroid gland.
16. Compare and contrast hypothyroidism and hyperthyroidism.
17. Describe the protocol in managing a thyroid related medical emergency in the dental office.
18. Differentiate between type I, type II, prediabetes, and gestational diabetes.

19. Discuss the complications of diabetes.
20. List the steps in managing a diabetic emergency in the dental office.
21. Compare and contrast angina and myocardial infarction.
22. Discuss the management of an angina attack in the dental office.
23. Discuss the management of a myocardial infarction in the dental office.
24. Define cardiac arrest.
25. Define congestive heart failure.
26. Discuss the protocol for managing acute pulmonary edema in the dental office.
27. Differentiate between epilepsy and seizures.
28. Discuss generalized seizures.
29. Outline the steps in the management of a seizure in the dental office.
30. Differentiate between an ischemic cerebrovascular accident and a hemorrhagic cerebrovascular accident.
31. Outline the steps in the management of a cerebrovascular accident in the dental office.
32. Identify common dental allergens.
33. Outline the steps in the management of an allergic reaction in the dental office.
34. State the protocol for managing an airway obstruction in the conscious patient.
35. State the role of the dental assistant in managing a medical emergency.

Module 5

Material Covered: Ch. 23 Anesthesia and Sedation

Assessments: Written Test & Final Exam

Objectives:

1. Use terms presented in this chapter.
2. Defend the importance of pain control.
3. Compare and contrast local anesthetics and topical anesthetics.
4. Describe the purpose of non-injectable local anesthetics.
5. State the rationale for vasoconstrictors.
6. Compare and contrast the different concentrations vasoconstrictor in a local anesthetic cartridge.
7. Compare and contrast the three types of dental oral anesthetic techniques.
8. Identify the needle insertion site for the block injections discussed in the chapter.
9. Describe the supplemental local anesthetic techniques.
10. State the rationale for local anesthetic reversal agents.
11. Discuss the advantages of a computer controlled local anesthetic delivery system.
12. Discuss the complications that may occur due to local anesthesia administration.
13. Outline the steps in preventing a medical emergency related to local anesthesia administration.
14. Identify the signs and symptoms of a reaction to epinephrine from a local anesthetic cartridge.
15. List the armamentarium necessary for administration of dental anesthesia.
16. Identify the parts of the local anesthetic syringe.
17. Identify the parts of the local anesthetic cartridge.
18. Identify the parts of the local anesthetic needle.
19. State the correct sequence of steps in assembling a local anesthetic syringe.

Module 6

Material Covered: Ch. 9 Oral Pathology

Assessments: Written Test & Final Exam

Objectives:

1. Use terms presented in this chapter.
2. Define oral pathology.
3. Identify the role of the dental assistant in the area of oral pathology.
4. Discuss the methods used to identify a lesion.
5. Define the three phases of inflammation.
6. Identify various lesions based on location.
7. Discuss the dental caries process.
8. Explain the four stages of decay.
9. Summarize the causes of rampant caries.
10. Compare and contrast lesions of the oral cavity caused by biological agents.
11. Differentiate between amelogenesis imperfecta and dentinogenesis imperfecta.
12. Compare and contrast anodontia and hypodontia.
13. Compare and contrast fusion and gemination.
14. Differentiate between macrodontia and microdontia.
15. Explain the various anomalies of the tongue.
16. Summarize the lesions produced by chemical agents.
17. Differentiate among the lesions produced by physical agents.
18. Identify the lesions that are caused by hormonal imbalances.
19. Differentiate among the lesions produced by nutritional deficiencies.
20. Compare and contrast between benign and malignant neoplasms.
21. List the common sites for oral cancer.
22. State the warning signs for oral cancer.
23. Compare and contrast leukoplakia and erythroplakia.
24. Discuss the two forms of lichen planus.
25. Discuss the oral lesions related to HIV and AIDS.
26. Explain the importance of oral cancer screening.
27. Outline the steps in a head and neck exam for oral cancer.
28. Outline the steps for a patient self-exam for oral cancer.
29. Compare and contrast the types of diagnostic tools available for oral cancer screening.
30. Compare and contrast patient treatment before, during and after radiation therapy.

****Students – please refer to the Instructor’s Course Information sheet for specific information on assessments and due dates.***

Part III: Grading and Assessment

EVALUATION OF REQUIRED COURSE MEASURES/ARTIFACTS*

Students’ performance will be assessed, and the weight associated with the various measures/artifacts are listed below.

EVALUATION

Tests (3)	60%
Final Exam	20%
Homework	15%
<u>Professionalism</u>	<u>5%</u>

100%

****Students, for the specific number and type of evaluations, please refer to the Instructor's Course Information Sheet.***

GRADING SYSTEM:

A=90-100

B=80-89

C=77-79

D=70-76

F=69 and below

A passing grade of 77% or better is mandatory to pass the course.

Grades earned in courses impact academic progression and financial aid status. Before withdrawing from a course, be sure to talk with your instructor and financial aid counselor about the implications of that course of action. Ds, Fs, Ws, WFs and Is also negatively impact academic progression and financial aid status.

The Add/Drop Period is the first 5 days of the semester for **full term** classes. Add/Drop periods are shorter for accelerated format courses. Please refer to the academic calendar for deadlines for add/drop ([ACADEMIC CALENDAR](#)). You must attend at least one meeting of all of your classes during that period. If you do not, you will be dropped from the course(s) and your Financial Aid will be reduced accordingly.

Part IV: Attendance

Horry-Georgetown Technical College maintains a general attendance policy requiring students to be present for a minimum of 80 percent (80%) of their classes in order to receive credit for any course. Due to the varied nature of courses taught at the college, some faculty may require up to 90 percent (90%) attendance. Pursuant to 34 Code of Federal Regulations 228.22 - Return to Title IV Funds, once a student has missed over 20% of the course or has missed two (2) consecutive weeks, the faculty is obligated to withdraw the student and a student may not be permitted to reenroll. **Instructors define absentee limits for their class at the beginning of each term; please refer to the Instructor Course Information Sheet.**

***Refer to the HGTC Dental Sciences Program Manual for additional policies on attendance.**

Part V: Student Resources



THE STUDENT SUCCESS AND TUTORING CENTER (SSTC):

The SSTC offers to all students the following **free** resources:

1. **Academic tutors** for most subject areas, **Writing Center support**, and **college success skills**.
2. Online **tutoring** and academic support resources.
3. Professional and interpersonal communication **coaching** in the EPIC Labs.

Visit the [Student Success & Tutoring Center](#) website for more information. To schedule tutoring, contact the SSTC at ssc@hgtc.edu or self-schedule in the Penji iOS/Android app or at www.penjiapp.com. Email ssc@hgtc.edu or call SSTC Conway, 349-7872; SSTC Grand Strand, 477-2113; and SSTC Georgetown, 520-1455, or go to the [Online Resource Center](#) to access on-demand resources.



STUDENT INFORMATION CENTER: TECH Central

TECH Central offers to all students the following **free** resources:

1. **Getting around HGTC:** General information and guidance for enrollment, financial aid, registration, and payment plan support!
2. Use the [Online Resource Center \(ORC\)](#) including Office 365 support, password resets, and username information.
3. **In-person workshops, online tutorials and more services** are available in Desire2Learn, Student Portal, Degree Works, and Office 365.
4. **Chat with our staff on TECH Talk**, our live chat service. TECH Talk can be accessed on the student portal and on TECH Central's website, or by texting questions to (843) 375-8552.



HGTC LIBRARY:

Each campus location has a library where HGTC students, faculty, and staff may check out materials with their HGTC ID. All three HGTC campus libraries are equipped with computers to support academic research and related school work; printing is available as

well. Visit the [Library](#) website for more information or call (843) 349-5268.

STUDENT TESTING:

Testing in an **online/hybrid** course and in **make-up exam** situations may be accomplished in a variety of ways:

- Test administered within D2L.
- Test administered in writing on paper.
- Test administered through Publisher Platforms (which may have a fee associated with the usage)

Furthermore, tests may have time limits and/or require a proctor.

Proctoring can be accomplished either face-to-face at an approved site or online through our online proctoring service. To find out more about proctoring services, please visit the [Online Testing](#) section of the HGTC's Testing Center webpage.

The **Instructor Course Information Sheet** will have more details on test requirements for your course.

DISABILITY SERVICES:

HGTC is committed to providing an accessible environment for students with disabilities. Inquiries may be directed to HGTC's [Accessibility and Disability Service webpage](#). The Accessibility and Disability staff will review documentation of the student's disability and, in a confidential setting with the student, develop an educational accommodation plan.

Note: It is the student's responsibility to self-identify as needing accommodations and to provide acceptable documentation. After a student has self-identified and submitted documentation of a disability, accommodations may be determined, accepted, and provided.

STATEMENT OF EQUAL OPPORTUNITY/NON-DISCRIMINATION STATEMENT:

Horry-Georgetown Technical College shall not discriminate in employment or personnel decisions or in student admissions or in student decisions, or in all other segments of the College community on the basis of race, color, sex, national or ethnic origin, age, religion, disability, marital or family status, veteran status, political ideas, sexual orientation, gender identity, or pregnancy, childbirth, or related medical conditions, including, but not limited to, lactation, in the educational programs and activities which it operates, and the college is prohibited from discrimination in such manner by applicable laws.

TITLE IX REQUIREMENTS:

Title IX of the Education Amendments of 1972 protects students, employees, applicants for admission and employment, and other persons from all forms of sex discrimination.

HGTC prohibits the offenses of domestic violence, dating violence, sexual assault, and stalking and will provide students, faculty, and staff with necessary information regarding prevention, policies, procedures, and resources.

Any student, or other member of the college community, who believes that they have been a victim of sexual harassment, domestic violence, dating violence, sexual assault, or stalking may file a report with the college's Title IX Coordinator or campus law enforcement*.

*Faculty and Staff are required to report these incidents to the Title IX Coordinator when involving students. The only HGTC employees exempt from mandatory reporting are licensed mental health professionals (only as part of their job description such as counseling services).

All inquiries regarding the federal laws as they relate to discrimination on the basis of sex may be directed to Tamatha Sells, Title IX Coordinator, Horry-Georgetown Technical College, Building 1100C, Room 107B, 2050 Hwy 501 E, PO Box 261966, Conway, SC 29528-6066, 843-349-5218, tamatha.sells@hgtc.edu.

OTHER INQUIRIES REGARDING THE NON-DISCRIMINATION POLICIES:

Other employee and applicant inquiries concerning the federal laws and their application to the College may be directed to Jacquelyne Snyder, Vice President, Human Resources and Employee Relations & the College's Affirmative Action/Equal Opportunity Officer, Horry-Georgetown Technical College, Building 200C, Room 205B, 2050 Hwy 501 E, PO Box 261966, Conway, SC 29528-6066, 843-349-5212, jacquelyne.snyder@hgtc.edu.

Other student and prospective student inquiries concerning the federal laws and their application to the College or any student decision may be directed to Dr. Melissa Batten, Vice President, Student Affairs, Section 504 & Title II Coordinator Horry-Georgetown Technical College, Building 1100C, Room 107A, 2050 Hwy 501 E, PO Box 261966, Conway, SC 29528-6066, 843-349-5228, Melissa.Batten@hgtc.edu.