



# INSTRUCTIONAL PACKAGE

DHG 241

Integrated Dental Hygiene I

201910  
Fall/2019

# INSTRUCTIONAL PACKAGE

## Part I: Course Information

Effective Term: 201810

COURSE PREFIX: DHG 241

COURSE TITLE: Integrated Dental  
Hygiene I

CONTACT HOURS: 1

CREDIT HOURS: 1

## **RATIONALE FOR THE COURSE:**

DHG 241 will help students interpret evidence-based research. They will also gain the skills and knowledge necessary to monitor Nitrous Oxide/Oxygen Sedation.

## **COURSE DESCRIPTION:**

This course provides for the integration of the basic and dental hygiene sciences with current concepts of clinical dental hygiene practice.

## **PREREQUISITES:**

AHS 113 Head and Neck Anatomy  
BIO 211 Anatomy Physiology II  
BIO 225 Microbiology  
DHG 125 Tooth Morphology and Histology  
DHG 151 Dental Hygiene Principles  
DHG 121 Dental Radiography  
DHG 141 Periodontology  
DHG 165 Clinical Dental Hygiene I  
DHG 243 Nutrition  
SPC 205 Public Speaking  
DHG 175 Clinical Dental Hygiene II  
DHG 239 Dental Assisting for Dental Hygienists  
PSY 201 General Psychology

## **CO-REQUISITES:**

DHG 140 General and Oral Pathology  
DHG 143 Dental Pharmacology  
DHG 230 Public Health Dentistry  
DHG 255 Clinical Dental Hygiene III

## **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 student portal for course materials.  
WaveNet and D2L email access.

### **STUDENT IDENTIFICATION VERIFICATION**

Students enrolled in online courses will be required to participate in a minimum of one (1) proctored assignment and/or one (1) virtual event to support student identification verification. Please refer to your Instructor Information Sheet for information regarding this requirement.

### **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**

1. Define and discuss the physical and chemical properties of nitrous oxide and oxygen.
2. Identify the main components of N<sub>2</sub>O-O<sub>2</sub> delivery systems.
3. Demonstrate a basic understanding of the proper maintenance of N<sub>2</sub>O-O<sub>2</sub> equipment to include infection control procedures, common malfunctions, and appropriate corrections and precautions for safe use.
4. Identify and respond to signs and symptoms of N<sub>2</sub>O-O<sub>2</sub> over-sedation.
5. Identify potential effects of N<sub>2</sub>O abuse.
6. Calculate and record accurate percentages of N<sub>2</sub>O-O<sub>2</sub> delivered.
7. Describe and discuss contraindications and indications for N<sub>2</sub>O-O<sub>2</sub> sedation.
8. Describe the effects of N<sub>2</sub>O on the central nervous system (CNS), gastrointestinal system (GI), and the cardiovascular system.
9. Demonstrate the steps in administration of N<sub>2</sub>O-O<sub>2</sub> sedation.

10. Utilize science-based research to prepare and present poster boards to the dental community.
11. Identify signs and symptoms of abuse and neglect and how to it is reported.

## **COURSE LEARNING OUTCOMES and ASSESSMENTS\*:**

### **Module 1**

**Materials Covered:** Handout on table clinic expectations and HGTC Library presentation on evidence-based research.

**Assessments:** Competency, Tests, Table Clinic

#### **Objectives:**

1. Discuss how to identify evidence-based research.
2. Outline the format of a table clinic poster board.
3. Learn how to format a brochure for table clinic presentations.

### **Module 2**

**Materials Covered:** *Nitrous Oxide Oxygen Sedation*: Ch. 1 Discovery, History, and Evolution of N<sub>2</sub>O/O<sub>2</sub> Sedation, Ch. 2 Guidelines for Best Practice, Ch. 3 Pain and Anxiety Management, Ch. 4 Desirable characteristics of N<sub>2</sub>O/O<sub>2</sub> Sedation, Ch. 5 Physical Properties and Pharmacokinetics/Pharmacodynamics of N<sub>2</sub>O

**Assessments:** Competency, Tests, Table Clinic

#### **Objectives**

1. Understand the significance of the discovery of nitrous oxide and oxygen.
2. Recognize current practice guidelines established for non-anesthesiologists working in an ambulatory setting.
3. Identify the physiologic mechanism of pain.
4. Recognize methods for assessing and measuring pain.
5. Identify the analgesic, anxiolytic, and amnestic effect of N<sub>2</sub>O/O<sub>2</sub> sedation.
6. Recognize the process of nitrous oxide elimination from the body.
7. Recognize physical and chemical properties of nitrous oxide and oxygen.
8. Discuss the pharmacokinetic and pharmacodynamic properties of nitrous oxide.

### **Module 3**

**Materials Covered:** *Nitrous Oxide Oxygen Sedation*: Ch. 6 Manufacturing and Distribution of N<sub>2</sub>O/O<sub>2</sub> and O<sub>2</sub> Gases, Ch. 7 Delivery of N<sub>2</sub>O/O<sub>2</sub> Sedation, Ch. 8 Anatomy and Physiology of Respiration and Airway Management, Ch. 9 N<sub>2</sub>O and Its Interaction with the Body, Ch. 10 Patient Assessment

**Assessments:** Competency, Tests, Table Clinic

#### **Objectives:**

1. Understand the simplicity of nitrous oxide manufacturing process.
2. Identify properties of nitrous oxide and oxygen cylinders.
3. Recognize variations of N<sub>2</sub>O/O<sub>2</sub> sedation delivery systems.
4. Review the anatomy of the upper and lower airways.
5. Appreciate the critical gas exchange across pressure gradients with nitrous oxide.
6. Recognize the clinical significance of diffusion hypoxia in N<sub>2</sub>O/O<sub>2</sub> sedation.

7. Identify the interaction of nitrous oxide with body systems.
8. Identify how nitrous oxide interacts with patients who have other health issues.
9. Understand the necessity of assessing patient risk before N<sub>2</sub>O/O<sub>2</sub> sedation.
10. Understand the necessity for patient monitoring before and during N<sub>2</sub>O/O<sub>2</sub> sedation.

#### **Module 4**

**Materials Covered:** *Nitrous Oxide Oxygen Sedation* Ch. 11 Titration of N<sub>2</sub>O/O<sub>2</sub> Gases, Ch. 12 Signs and Symptoms of N<sub>2</sub>O/O<sub>2</sub> Sedation, Ch. 13 Technique for N<sub>2</sub>O/O<sub>2</sub> Administration and Assessment of Recovery, Ch. 14 Multidisciplinary Application of N<sub>2</sub>O/O<sub>2</sub> Sedation, Ch. 15 N<sub>2</sub>O/O<sub>2</sub> Sedation in Pediatric Dentistry

**Assessments:** Competency, Tests, Table Clinic

#### **Objectives:**

1. Understand the significance of titration.
2. Recognize the sign and symptoms of appropriate minimal sedation using nitrous oxide and oxygen.
3. Recognize the signs and symptoms of over sedation using nitrous oxide and oxygen sedation.
4. Understand the fundamental principles of appropriate N<sub>2</sub>O/O<sub>2</sub> sedation.
5. Describe the technique steps for the appropriate administration of N<sub>2</sub>O/O<sub>2</sub> sedation.
6. Recognize the appropriate technique for assessing adequate recovery from N<sub>2</sub>O/O<sub>2</sub> sedation.
7. Recognize important documentation procedures associated with N<sub>2</sub>O/O<sub>2</sub> sedation.
8. Recognize how N<sub>2</sub>O/O<sub>2</sub> sedation can be used for a wide variety of procedures.
9. Understand the steps and safety for administration of N<sub>2</sub>O/O<sub>2</sub> sedation in dentistry.

#### **Module 5**

**Materials Covered:** *Nitrous Oxide Oxygen Sedation* Ch. 16 Potential Biohazards for Health Personnel Associated with Chronic Exposure to N<sub>2</sub>O, Ch. 17 Nitrous Oxide Abuse Issues, Ch. 18 Ethical and Legal considerations Regarding N<sub>2</sub>O/O<sub>2</sub> Administration, Ch. 19 Frequently Asked Questions Regarding N<sub>2</sub>O/O<sub>2</sub> Sedation, Ch. 20 Future trends in N<sub>2</sub>O/O<sub>2</sub> Sedation

**Assessments:** Competency, Tests, Table Clinic

#### **Objectives:**

1. Recognize specific biologic issues and health concerns associated with chronic exposure to nitrous oxide.
2. Understand what is meant by a nitrous oxide scavenging system.
3. Understand how nitrous oxide is abused.
4. Discuss the additive nature of nitrous oxide.
5. Recognize appropriate educational levels and training requirements for N<sub>2</sub>O/O<sub>2</sub> administration.
6. Discuss the most frequently asked question regarding N<sub>2</sub>O/O<sub>2</sub> sedation.
7. Discuss the future trends in N<sub>2</sub>O/O<sub>2</sub> sedation.

## **Module 6**

**Materials Covered:** Guest speaker from The South Carolina Department of Social Services

**Assessments:** Competency, Tests, Table Clinic

### **Objectives:**

1. Intake Unit, and the Abuse & Neglect Hotline
2. How abuse investigations are conducted
3. Identify and define abuse and neglect
4. How the court system handles abuse and neglect cases

***\*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	40%
Projects (Table Clinic)	60%
	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 or lower

\*Students must pass with a 77% or higher to continue in the DH Program.

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

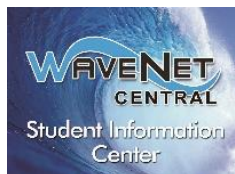


### The Student Success and Tutoring Center (SSTC)

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

- 1. Academic coaches** for most subject areas, **Writing Center Support**, and **college success skills.**
- 2. On-line student success and academic support resources.**

Visit the SSTC website: [Student Success & Tutoring Center](#) and visit the student services tab in your WaveNet account to schedule appointments using TutorTrac. For more information, 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 any time.



## **Student Information Center: WaveNet Central (WNC)**

WNC offers to all students the following **free** resources:

1. **Getting around HGTC:** General information and guidance for enrollment!
2. Use the [Online Resource Center \(ORC\)](#) for COMPASS support, technology education, and online tools.
3. **Drop-in technology support or scheduled training** in the Center or in class.
4. **In-person workshops, online tutorials and more services** are available.

Visit the WNC website: [Wavenet Central](#). Live Chat and Center locations are posted on the website. Or please call one of the following locations: WNC Conway, 349-5182; WNC Grand Strand, 477-2076; and WNC Georgetown, 520-1473.

The **Instructor 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 Beth Havens, Director of Student Development on the Conway Campus Jaime Davis, Counselor/Advisor on the Georgetown Campus or Kristin Griffin, Counselor on the Grand Strand Campus. These individuals 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 prohibits discrimination and harassment, including sexual harassment and abuse, 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 educational programs and/or activities.

Inquiries regarding the non-discrimination policies: Students and prospective student inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision may be directed to the Vice President for Student Affairs, Dr. Melissa Batten, VP Student Affairs, Title IX Coordinator, Building 1100, Room 107A, Conway Campus, PO Box 261966, Conway, SC 29528-6066, 843-349-5228, [Melissa.Batten@hgtc.edu](mailto:Melissa.Batten@hgtc.edu). Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources, Jacquelyne Snyder, VP Human Resources, Section 504, Title II, and Title IX Coordinator, Building 200, Room 212A, Conway Campus, PO Box 261966, Conway, SC 29528-6066, 843-349-5212, [Jacquelyne.Snyder@hgtc.edu](mailto:Jacquelyne.Snyder@hgtc.edu).

### **Title IX Requirements**



All students (as well as other persons) at Horry-Georgetown Technical College are protected by Title IX—regardless of their sex, sexual orientation, gender identity, part- or full-time status, disability, race, or national origin—in all aspects of educational programs and activities. Any student, or other member of the college community, who believes that he/she is or has been a victim of sexual harassment or sexual violence may file a report with the college’s Chief Student Services Officer, campus law enforcement, or with the college’s Title IX Coordinator, or designee.

\*Faculty and Staff are required to report incidents to the Title IX Coordinators 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).

<p><b>Inquiries regarding the non-discrimination policies:</b></p>	
<p>Student and prospective student inquiries concerning Section 504, Title II, and Title IX and their application to the College or any student decision may be directed to the Vice President for Student Affairs.</p>	<p>Employee and applicant inquiries concerning Section 504, Title II, and Title IX and their application to the College may be directed to the Vice President for Human Resources.</p>
<p><b>Dr. Melissa Batten, VP Student Affairs</b>  <i>Title IX Coordinator</i>          Building 1100, Room 107A, Conway          Campus          PO Box 261966, Conway, SC 29528-6066          843-349-5228  <a href="mailto:Melissa.Batten@hgtc.edu">Melissa.Batten@hgtc.edu</a></p>	<p><b>Jacquelyne Snyder, VP Human Resources</b>  <i>Section 504, Title II, and Title IX Coordinator</i>          Building 200, Room 212A, Conway Campus          PO Box 261966, Conway, SC 29528-6066          843-349-5212  <a href="mailto:Jacquelyne.Snyder@hgtc.edu">Jacquelyne.Snyder@hgtc.edu</a></p>