

## **DHYG 237 - ANESTHESIA AND PAIN CONTROL**      2 CREDITS

### **SYLLABUS**

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#### **CATALOG DESCRIPTION**

A study of the application of various physical, chemical and psychological modalities to the prevention and treatment of preoperative and postoperative patient anxiety and pain. Emphasis is placed on dental hygiene administration of local anesthesia and the monitoring of nitrous oxide

Prerequisites: DHYG 221, 225 Co-requisites: DHYG 229, 233, 234, 235

Semester Offered: Fall

#### ***COMMON STUDENT LEARNING OUTCOMES***

*Upon successful completion of San Juan College programs and degrees, the student will demonstrate competency in...*

##### **BROAD AND SPECIALIZED LEARNING**

Students will actively and independently acquire, apply, and adapt skills and knowledge with an awareness of global contexts.

##### **CRITICAL THINKING**

Students will think analytically and creatively to explore ideas, make connections, draw conclusions and solve problems.

##### **CULTURAL AND CIVIC ENGAGEMENT**

Students will act purposefully, reflectively, and ethically in diverse and complex environments.

##### **EFFECTIVE COMMUNICATION**

Students will exchange ideas and information with clarity in multiple contexts.

##### **INFORMATION LITERACY**

Students will be able to recognize when information is needed and have the ability to locate, evaluate, and use it effectively.

##### **INTEGRATING TECHNOLOGIES**

Students will demonstrate fluency in the application and use of technologies in multiple contexts.

Student work from this class may be randomly selected and used anonymously for assessment of course, program, and/or institutional learning outcomes. For more information, please refer to the Dean of the appropriate School.

## COURSE LEARNING OUTCOMES

*Upon successful completion of the course, the student will be able to...*

1. Understand the philosophy and psychology of local anesthesia, and nitrous oxide /oxygen sedation
2. Recognize and demonstrate physical, chemical and psychological methodologies of dental pain control
3. Evaluate a patient's medical history and physical status including measurement of vital signs, and monitor the patient's physical status while under the effects of local anesthetics
4. Evaluate indications and contraindications for use of local anesthesia
5. Demonstrate an in-depth knowledge of the anatomy and anatomical landmarks that pertain to administration of local anesthesia
6. Understand the physiology of nerve conduction
7. Understand the pharmacology of local anesthetics and vasoconstrictors
8. Demonstrate knowledge of all components of the dental local anesthetic armamentarium, including proper selection, preparation, safe and effective handling, and maintenance. To include manual, safety and computer controlled local anesthetic devices (CCLAD).
9. Accurately calculate doses of all local anesthetics for any given patient.
10. Determine the proper titration of nitrous oxide/oxygen for minimal and moderate sedation
11. Safely administer local anesthesia and nitrous oxide/oxygen sedation.
12. Properly record the administration of local anesthetic procedures and complications,
13. Demonstrate the ability to handle medical emergencies associated with the administration of local anesthesia and nitrous oxide/oxygen sedation.
14. Recognize and manage post-injection complications and reactions to injections
15. Employ infection control techniques including disposal of sharps
16. Administer local anesthetic agents with emphasis on: technique, aspiration, slow injection, and minimum effective dosage,
17. Recognize, and manage reactions to local anesthetics and vasoconstrictors
18. Determine the need for reinjection