



Broward Community College

Course Outline

/STATUS: A

COMMON COURSE NUMBER: DES 1050

COURSE TITLE: Pain Control and Dental Anesthesia

CREDIT HOURS: 1

CONTACT HOURS BREAKDOWN:

Lecture/Discussion 16

Lab 0

Other 0

Contact Hours/Week 2/week: Second 8 weeks Term II

CATALOG COURSE DESCRIPTION: This course provides a study of agents used in dentistry for local anesthesia and pain control.

Prerequisite: DEH 1003, DEH 1003L, DEH 1800, DEH 1800L, DEH 2400,
DES 2050

Corequisite: DEH 1130, DEH 1802, DEH 1802L

UNIT TITLES:

- 1.Pain and Anxiety
- 2.The Twelve Cranial Nerves, Neuroanatomy of Trigeminal Nerve
- 3.Local Anesthesia/Anesthetic Solutions
- 4.Topical Anesthesia
- 5.Prevention, Recognition and Management of Complications and Emergencies Related to Pain Control
- 6.Nonpharmacologic Methods of Pain and Anxiety Control
- 7.Operative and Post-Operative Control of Pain

I. Course Overview:

Upon successful completion of this course, the student will be able to describe pain perception, pain reaction, methods of pain control, and the relevancy of psychosomatic pain control and topical and local anesthesia related to dental hygiene practice.

II. Units:

Unit 1. 1. Pain and Anxiety

General Outcome:

- 1.0 The students should be able to define pain perception, reaction, and describe methods of pain and anxiety control.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 1.1 List definitions of Pain and Anxiety
- 1.2 Define Pain Perception and Reaction Threshold
- 1.3 Describe Pain Pathways
- 1.4 List Methods of Pain Control
- 1.5 Describe Techniques of Pre-Operative and Operative Pain Control

Unit 2. 2. Nerve Supply

General Outcome:

2.0 The students should be able to name the nerve anatomy supply to the body and head, and identify tissues innervated by each.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 2.1 Name the Twelve Cranial Nerves and Functions
- 2.2 Describe the Neuroanatomy of the Trigeminal Nerve
- 2.3 Describe the Ophthalmic Division
- 2.4 Describe the Maxillary Division
- 2.5 Describe the Mandibular Division

Unit 3. 3.Local Anesthetics

General Outcome:

3.0 The students should be able to identify various types of anesthetic solutions and methods of delivery.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 3.1 List methods of local anesthetic delivery
- 3.2 Describe the composition of anesthetic solutions
- 3.3 Describe types and purposes of vasoconstrictors and antioxidants
- 3.4 List the properties of an ideal anesthetic
- 3.5 Describe the chemistry of local anesthetic solutions
- 3.6 List Amide derivative solutions
- 3.7 List Ester derivative solutions
- 3.8 Pre-anesthetic patient evaluation

Unit 4 Topical Anesthetics

General Outcome:

4.0 The students should be able to identify methods of topical anesthesia and tissues anesthetized.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 4.1 Describe topical anesthetics
- 4.2 List indications for use
- 4.3 Identify specific topical agents
- 4.4 Describe application techniques

Unit 5. 5. Prevention of Complications and Emergencies Related to Pain Control

General Outcome:

5.0 The students should be able to recognize potential complications in at risk patients related to pain control.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

5.1 Describe toxic reactions related to pain medications

5.2 Describe allergic reactions related to pain medications

5.3 Define idiosyncratic reactions

5.4 Identify complications from needle insertion

5.5 Describe the management of common emergencies

Unit 6. 6. Nonpharmacologic Methods of Pain and Anxiety

General Outcome: Describe the nonpharmacologic methods of pain and anxiety control.

6.0 The students should be able to describe psychological and behavioral modifications to manage pain.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

6.1 List specific psychological and behavioral techniques used to manage pain and anxiety

6.2 Describe electronic dental analgesia

Unit 7. 7 Postoperative Control of Pain

General Outcome: List specific medications used to manage pain.

7.0 The students should be able to list medications according to specific drug categories for pain control.

Specific Learning Outcomes:

Upon successful completion of this unit, the students should be able to:

- 7.1 List and describe Analgesics
- 7.2 List and describe Opioids
- 7.3 List and describe Anticholinergic Agents
- 7.4 List and describe Nicotinic Agents
- 7.5 List and describe Neuromuscular Agents
- 7.6 List Adrenergic Agents and describe their use
- 7.7 Describe potential drug interactions
- 7.8 Describe possible contraindications for medications