

## Master Syllabus

### DEH 2502 - Pharmacology in the Dental Practice

**Division:** Health Sciences

**Department:** Dental Health Sciences

**Credit Hour Total:** 2.0

**Lecture Hrs:** 2.0

**Prerequisite(s):** DEH 2402 AND DEH 2403

**Other Prerequisite(s):** AND Restricted to Majors

**Date Revised:** February 2014

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### Course Description:

Overview of the conventional drug classes with emphasis on the actions, effects and indications for those used in the dental practice.

### General Education Outcomes:

- Critical Thinking/Problem Solving Competency

### Course Outcomes:

#### Nitrous Oxide

Describe the physiologic effects of nitrous oxide sedation and discuss the potential adverse effects related to chronic nitrous oxide exposure.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

70% or higher achieved

#### Antimicrobials

Differentiate the various classes of antimicrobial agents in terms of mechanism of action, spectrum, potential toxicity and known drug interactions.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

70% or higher achieved

#### Hormones and Endocrine Agents

Summarize the actions of thyroid, parathyroid, pancreatic and ovarian hormones and relate the systemic effects of selected pharmacologic agents used in the treatment of endocrine disease.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

70% or higher achieved

#### Sedative and Psychotropic Agents

Compare the mechanism of action of selected sedative and psychotropic agents and evaluate the safety and general side-effect profiles of these groups.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

70% or higher achieved

#### Autonomic Drugs

Compare and contrast the actions and effects of the two divisions of the autonomic nervous system and interpret the anticipated effects of selected autonomic agents.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

70% or higher achieved

#### Analgesic and Anti-Inflammatory Agents

Compare the mechanism of action of selected analgesic and antiinflammatory agents and construct a formula for their use in the practice of dentistry.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

70% or higher achieved

#### Pulmonary and Gastro-Intestinal Agents

Describe the basic types of obstructive pulmonary disease and inflammatory gastro-intestinal diseases and discuss the actions of the medications used in the treatment of each.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

70% or higher achieved

**Pharmacology and Physiology of Local Anesthetics**

Describe the physiology of the peripheral nervous system and summarize the pharmacology of local anesthetic preparations and the manner in which they alter the physiologic responses of neural tissues.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

70% or higher achieved

**Cardiovascular Drugs**

Illustrate the mechanism of action of selected cardiovascular agents in the treatment therapy of congestive heart failure, hypertension, coronary artery disease and cardiac dysrhythmias.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

70% or higher achieved

**Pharmacokinetics and Dynamics**

Differentiate the basic principles of pharmacokinetics from those of pharmacodynamics and illustrate the effects of these principles on the absorption, bioavailability and metabolism of a given drug.

**Assessment Method:** Locally developed exams

**Performance Criteria:**

70% or higher achieved

**Outline:**

Pharmacokinetics and Pharmacodynamics

Autonomic Nervous System and Autonomic Drugs

Pharmacology of Drug Categories Pertinent to the Practice of Dentistry