

Prepared by the Department of Health Sciences

Date of Departmental Approval: January 18, 2018

Date Approved by Curriculum and Programs: February 21, 2018

Effective: Fall 2018

1. **Course Number:** DEN200  
**Course Title:** Pharmacology for Dental Hygiene
2. **Description:** This course addresses the basic principles of pharmacology and anesthesiology and applies this knowledge to the treatment of dental hygiene patients. The student applies the knowledge of drugs, their actions, and the use of the drugs used in dentistry and their impact on patients. The course content includes the physical and chemical properties, preparations, mode of administration, and effect on body systems, as well as reference to medical emergencies associated with dental treatment.
3. **Student Learning Outcomes:** Upon successful completion of this course, students are able to do the following:
  - State the general principles of pharmacology including legislation, regulatory agencies, prescription writing.
  - Discuss the mechanism of action of the drug including absorption, distribution, elimination and adverse reactions.
  - Identify medications according to their classification, generic name, trade name and action.
  - Review antibiotic management of infectious diseases in relation to oral conditions.
  - Discuss pain and anxiety management in dental treatment using local and general anesthetics, sedatives and opiate analgesics.
  - State the therapeutic use(s) for each drug group, including autonomic drugs, non-narcotic analgesics, narcotic analgesics, anti-infective agents, anti-fungal and anti-viral agents, local anesthetics, anti-anxiety agents, general anesthetics and fluorides.
  - Explain oral conditions and their pharmacologic management.
  - Discuss the management of medical emergencies in the dental office using pharmacologic agents.
  - Explain the following drugs that may alter dental treatment: cardiovascular drugs, anti-convulsants, psycho-therapeutic agents, autacoids and antihistamines, adrenocorti-costeroids, hormones, antineoplastic drugs, respiratory and gastrointestinal drugs.
  - State and discuss the important adverse reactions/interactions or side effects of drugs and their management and contraindications as related to dentistry
  - Identify modifications in the dental treatment plan that would be required for patients taking medications.
4. **Credits:** 3 credits
5. **Satisfies General Education Requirement:** No
6. **Prerequisite:** DEN121 (Dental Hygiene I)
7. **Semester Offered:** Spring
8. **Suggested General Guidelines for Evaluation:** Students are graded on the basis of four written examinations to be given at roughly quarterly intervals throughout the course and a final examination, and attendance/participation. Grades are assigned according to the guidelines of the particular departments involved.
9. **General Topical Outline:** See attached

## **DEN200. Pharmacology for Dental Hygiene - Outline**

- Regulatory Agencies
- Prescription Writing
- Top 200 Drugs
- Drug Action Pharmacokinetics
- Autonomic Pharmacology
- Non-opioid/Opioid Agents
- Anti-Bacterial Agents; Anti-Fungal Agents; Anti-Viral Agents
- Anti-Anxiety Agents
- Emergency Drugs
- Local and General Anesthetics
- Cardiovascular System Drugs
- Anti-Convulsant Drugs; CNS Drugs; Psychotherapeutic Drugs; Neurologic Drugs
- Joint Disorders
- Cancer Chemotherapy Drugs; Endocrine System Drugs; Gastrointestinal System Drugs
- Women's & Men's Issues;
- Adverse Drug Effects
- Management of Oral Conditions
- Herbal & Dietary Supplements
- Topical Agents
- Drug abuse