

Reviewed By: E. Hershkowitz
Reviewed By: D. Champion
Reviewed By: S. Jennings
Reviewed by: G.Gardner
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Dental Hygiene (DNTL) 2131 Pharmacology (2 Units) CSU
[formerly Dental Hygiene 31]

Prerequisite: Successful completion of all first and second semester Dental Hygiene Program courses as well as Chemistry 1520 and Biology 2257 with a grade of 'C' or better .

Prerequisite knowledge/skills:

Before entering the course the student should be able to:

1. Distinguish roles of four major classes of bio-molecules in living cells,
2. Compare and contrast the processes of DNA replication and transcription, RNA translation, and common types of mutations; and
3. Demonstrate knowledge of major biochemical components in metabolism
4. Describe and distinguish various roles of major classes of biomolecules in living cells,
5. Describe key functional features of different types of human cells and how they communicate,
6. Identify key functions of major organ systems and the physiological mechanisms underlying their operation,
7. Demonstrate an understanding of how organ systems of the body are integrated and regulated,
8. Demonstrate an understanding of how homeostasis is maintained in the body,
9. Demonstrate knowledge of metabolic and physiological disorders of the major organ systems, and
10. Demonstrate an understanding of the scientific method, experimental design, and the philosophy of science.

Hours and Unit Calculation:

32 hours lecture. 64 Outside of class hours. (96 Total Student Learning Hours) 2 Units

Catalog Description: This course emphasizes the classification and study of drugs according to origin, physical and chemical properties, therapeutic effect and values, particularly of drugs used in dentistry.

Type of Class/Course: Degree Credit

Texts:

Haveles, Elena Bablenis. *Applied Pharmacology for the Dental Hygienist*, 8th ed., Mosby, 2019.

Weinberg, Mea A., et al. *Oral Pharmacology for the Dental Hygienist*. 2nd ed., Pearson, 2012.

Additional Instructional Materials: None

Course Objectives:

By the end of the course, a successful student will be able to:

1. State the therapeutic uses, mechanisms of action, pharmacokinetics, and major pharmacologic effects for each drug group.
2. Discuss important adverse reactions or side effects.
3. Discuss clinically significant drug-drug interactions.
4. Identify the dental implications of each drug group.
5. Describe the use of antimicrobials used in dentistry and medicine.
6. Describe the use of sedative-hypnotics and tranquilizers in the dental practice, and
7. Identify and describe medications for various systemic diseases.

Course Scope and Content:

- Unit I General Principles
1. Information, Sources, and Regulatory Agencies
 2. Drug Action and Handling
 3. Adverse Reactions
 4. Prescription Writing
- Unit II Drugs Used in Dentistry
1. Autonomic Drugs
 2. Nonopioid (Nonnarcotic) Analgesics
 3. Opioid (Narcotic) Analgesics
 4. Anti-infective Agents
 5. Antifungal and Antiviral Agents
 6. Antianxiety Agents
- Unit III Drugs That May Alter Dental Treatment
1. Cardiovascular Drugs
 2. Anticonvulsants
 3. Psychotherapeutic Agents
 4. Autacoids and Antihistamines
 5. Adrenocorticosteroids
 6. Other Hormones
 7. Respiratory and Gastrointestinal Drugs
- Unit IV Special Situations
1. Emergency Drugs
 2. Drug Interactions
 3. Drug Abuse

Learning Activities Required Outside of Class:

The students in this class will spend a minimum of 4 hours per week outside of the regular class time doing the following:

Independent reading and study

Methods of Instruction:

1. Lecture
2. Class discussions
3. Audio-visual presentations
4. Evidence based research
5. Case Studies

Methods of Evaluation:

1. Examinations, quizzes and case studies that include:
 - a. multiple choice items
 - b. matching items
 - c. true/false items
 - d. short answer essay
2. Oral presentation

Supplemental Data:

TOP Code:	124020: Dental Hygienist
SAM Priority Code:	C: Clearly Occupational
Distance Education:	Not Applicable
Funding Agency:	Y: Not Applicable(funds not used)
Program Status:	1: Program Applicable
Noncredit Category:	Y: Not Applicable, Credit Course
Special Class Status:	N: Course is not a special class
Basic Skills Status:	N: Course is not a basic skills course
Prior to College Level:	Y: Not applicable
Cooperative Work Experience:	N: Is not part of a cooperative work experience education program
Eligible for Credit by Exam:	NO

Eligible for Pass/No Pass:	NO
Taft College General Education:	NONE
Discipline:	Dental Technology