



ILLINOIS VALLEY COMMUNITY COLLEGE

COURSE OUTLINE

DIVISION: Workforce Development

COURSE: DLA 2210 Pharmacology

Date: Spring 2021

Credit Hours: 0.5

Prerequisite(s): DLA 1210 Dental Science II

Delivery Method: **Lecture** **0.5 Contact Hours** (1 contact = 1 credit hour)
 Seminar **0 Contact Hours** (1 contact = 1 credit hour)
 Lab **0 Contact Hours** (2-3 contact = 1 credit hour)
 Clinical **0 Contact Hours** (3 contact = 1 credit hour)
 Online
 Blended

Offered: **Fall** **Spring** **Summer**

CATALOG DESCRIPTION:

This course is designed to familiarize the student the broad definition of pharmacology and drugs, with the study of all drugs, their properties, how they react with each other, and the actions of the drugs within the body.

GENERAL EDUCATION GOALS ADDRESSED

[See last page for Course Competency/Assessment Methods Matrix.]

Upon completion of the course, the student will be able:

[Choose up to three goals that will be formally assessed in this course.]

- To apply analytical and problem solving skills to personal, social, and professional issues and situations.
- To communicate successfully, both orally and in writing, to a variety of audiences.
- To construct a critical awareness of and appreciate diversity.
- To understand and use technology effectively and to understand its impact on the individual and society.
- To develop interpersonal capacity.
- To recognize what it means to act ethically and responsibly as an individual and as a member of society.
- To recognize what it means to develop and maintain a healthy lifestyle in terms of mind, body, and spirit.
- To connect learning to life.

EXPECTED LEARNING OUTCOMES AND RELATED COMPETENCIES:

[Outcomes related to course specific goals. See last page for more information.]

Upon completion of the course, the student will be able to:

1. **Describe a basic understanding of the drugs commonly prescribed for dental conditions and the assistant's role in drug management. (Standard 2-13-e)**
 - 1.1. Identify terms relating to drugs, pharmacology, and medicines
 - 1.2. Identify the difference between drug brand names and generic names.
 - 1.3. Identify the parts of a written prescription.
 - 1.4. Identify texts pertinent to pharmacology, and know how to find information in them.
 - 1.5. Give the English meanings of the Latin abbreviations used for prescriptions.
 - 1.6. Identify the schedules for the Comprehensive Drug Abuse and Prevention and Control Act of 1970.
 - 1.7. Identify routes through which drugs can be administered.
 - 1.8. Demonstrate an understanding of the drugs used in dentistry, and ways in which they are used.
 - 1.9. Demonstrate an understanding of the drug actions, side effects, indications and contraindications for use.
 - 1.10. Summarize the uses and effects of nicotine, caffeine, alcohol, marijuana, and cocaine.
 - 1.11. Summarize information about heroin, morphine, and codeine.
 - 1.12. Supply information about amphetamines.
 - 1.13. Demonstrate an understanding of hallucinogenic drugs such as LSD, PCP, and mescaline.
 - 1.14. Demonstrate an understanding about barbiturates.

2. Demonstrate a basic understanding of the types of anesthesia used in dentistry. (Standard 2-13-e-v)

- 2.1. Describe the methods used to manage the pain and anxiety associated with dental procedures.
- 2.2. Explain various topical anesthetics and their placements.
- 2.3. Describe types of local anesthetics.
- 2.4. Identify injection sites for the maxillary and mandibular arches.
- 2.5. Describe the equipment and materials needed to administer local anesthetic.
- 2.6. List the steps for preparing for the administration of local anesthetic.
- 2.7. Identify supplemental techniques to administer anesthetics.
- 2.8. Discuss the role of nitrous oxide in the care of the dental patient.
- 2.9. Demonstrate the ability to assist in the administration of nitrous oxide.

MAPPING LEARNING OUTCOMES TO GENERAL EDUCATION GOALS

[For each of the goals selected above, indicate which outcomes align with the goal.]

Goals	Outcomes
First Goal	
Connect learning to life	1.9, 1.10, 1.11, 1.12, 1.13, 1.14

COURSE TOPICS AND CONTENT REQUIREMENTS:

- I. Anesthesia Used in Dentistry
 - A. Types of Sedation
 - i. Conscious sedation
 - ii. Intravenous sedation (IV)
 - iii. Oral sedation
 - iv. Inhalation sedation
 - 1. Nitrous oxide
 - v. Intramuscular sedation
 - vi. General anesthesia
 - 1. Four stages
 - 2. Agents commonly used
 - vii. Topical anesthesia
 - viii. Local anesthesia
 - 1. Agents
 - 2. Vasoconstrictors
 - 3. Possible complications
 - 4. Types of injections
 - 5. Injection sites
- II. Pharmacology
 - A. Drug names
 - i. Brand names
 - ii. Generic names
 - B. Prescriptions
 - i. Parts of a prescription
 - C. Texts pertinent to pharmacology

- D. Drug laws
 - i. Comprehensive Drug Abuse Prevention and Control act of 1970
 - ii. Dental Assistants and the Law
- E. Pharmacokinetics
- F. Drug administration routes
- G. Drugs
 - i. Prescribed drugs by drug classification
 - ii. Drugs not prescribed by the dentist
- H. Herbal and other alternative medicine

INSTRUCTIONAL METHODS:

- Lecture
- Class discussion
- Class Presentations
- Text assignments
- Visual aids - videos, slides, charts and models, power points
- Computers
- Exams and quizzes
- Demonstration

INSTRUCTIONAL MATERIALS:

- Oral thermometers, stethoscopes, sphygmomanometers
- Text books
 - Head, Neck & Dental Anatomy, 4th Edition, 2013
 - Anatomy of Orofacial Structures: A Comprehensive Approach, Enhanced 7th Edition, 2014
 - Dental Assisting: A Comprehensive Approach, 5th Edition, 2018
 - Dental Assisting: A comprehensive Approach Workbook, 5th Edition, 2018
- YouTube
- Library Resources
- Writing Center

STUDENT REQUIREMENTS AND METHODS OF EVALUATION:

Reading assigned materials, note taking and participation in classroom discussion is expected of students.

Written examinations are used to evaluate student progress. A minimum of four tests and a comprehensive final exam will be given. All exam grades are weighted proportionately to determine the final grade.

A grade of "C" is required for graduation from the Dental Assisting Program. The following grading scale will be used as a guide in determining the final letter grade for this course:

A= 90-100

B= 80-89

C= 70-79

D= 60-69

F= 0-59

OTHER REFERENCES

Course Competency/Assessment Methods Matrix

DLA 2210		Assessment Options																															
For each competency/outcome place an "X" below the method of assessment to be used.	Assessment of Student Learning	Article Review	Case Studies	Group Projects	Lab Work	Oral Presentations	Pre-Post Tests	Quizzes	Written Exams	Artifact Self Reflection of Growth	Capstone Projects	Comprehensive Written Exit Exam	Course Embedded Questions	Multi-Media Projects	Observation	Writing Samples	Portfolio Evaluation	Real World Projects	Reflective Journals	Applied Application (skills) Test	Oral Exit Interviews	Accreditation Reviews/Reports	Advisory Council Feedback	Employer Surveys	Graduate Surveys	Internship/Practicum /Site Supervisor Evaluation	Licensing Exam	In Class Feedback	Simulation	Interview	Written Report	Assignment	
	Direct/ Indirect	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	D	I	I	I	I	D	D							
Assessment Measures – Are direct or indirect as indicated. List competencies/outcomes below.																																	
Identify, take and record vital signs			X	X	X	X		X	X			X		X						X		X	X		X	X	X	X	X				X
Demonstrate a basic understanding of common dental and medical emergencies and their management			X	X	X	X		X	X			X		X						X		X	X		X	X	X	X	X				X
Demonstrate a basic understanding of the body systems, their function and components			X	X	X	X		X	X			X		X						X		X	X		X	X	X	X	X				X
Demonstrate a basic understanding of the types of anesthesia used in dentistry			X	X	X	X		X	X			X		X						X		X	X		X	X	X	X	X				X

Describe a basic understanding of the drugs commonly prescribed for dental conditions and the assistants role in drug management			X	X	X	X		X	X								X		X	X		X	X	X	X	X											X	
Demonstrate a basic understanding of the clinical features, etiology, and treatment for common oral pathologies			X	X	X	X		X	X								X		X	X		X	X	X	X	X	X											X
Demonstrate a basic understanding of oral embryology					X	X		X	X								X		X	X		X	X	X	X	X	X											X
Demonstrate a basic understanding of oral histology					X	X		X	X								X		X	X		X	X	X	X	X	X											X