

Header

Pharmacology

DH1540 301

Instructor Information

Faculty

Phone:

Email: Office Location:

Office Hours

Course Description

Course emphasizes pharmacodynamics of drug action, modes of administration, biotransformation, excretion, drug side effects and interactions. Focus on impact various medications have in dental and dental hygiene treatment.

Prereq: DH 1100

Semester: Spring:

Students should complete the weekly reading assignments prior to each class period. Be well prepared to participate in class discussions and other learning activities.

DATE	TOPIC/ACTIVITY	ASSIGNMENTS
	WEEK ONE	
Jan 8	Course Syllabus Chapters 1,2,	READ

	Information, Sources, Reg. Agencies, Drug Leg., and Prescription Writing, Drug Action and Handling	CH 1, 2, 3, & 4 Course Verification Agreement
	WEEK TWO	
Jan 15	Human Rights (Martin Luther King Jr. Day) College closed	
	WEEK THREE	
Jan 22	Chapters 3,4 Adverse Reactions Autonomic Drugs	QUIZ 1: CH 1&2 READ CH 5 & 6 Case Studies/Discussions
	WEEK FOUR	
Jan 29	Chapters 5, 6 Nonopioid Analgesics Opioid Analgesics and Antagonists	QUIZ 2: CH 3&4 READ CH 7 & 8 Case Studies/Discussions
	WEEK FIVE	
Feb 5	Chapters 7,8 Antiinfective Agents Oral Conditions and their Treatment	QUIZ 3: CH 5&6 READ CH 10 & 11 Case Studies/Discussions
	WEEK SIX	
Feb 12	Chapters 10,11 Local Anesthetics General Anesthetics	QUIZ 4: CH 7&8 READ CH 9 & 25 Case Studies/Discussions

	ASA Classifications	
	WEEK SEVEN	
Feb 19	Presidents' Day Holiday College closed	
	WEEK EIGHT	
Feb 26	Chapters 9,25 Anti-anxiety Agents Oral Conditions and Their Treatment	QUIZ 5: CH 10 &11 READ CH 12 & 26 Case Studies/Discussions
	WEEK NINE	
Mar 4 -9	Spring Break!!!	

	WEEK TEN	
Mar 11	Chapters 12 & 26 25 &17 Drugs for the Treatment of Cardiovascular Disease Hygiene related oral disorders Case Studies/Discussions	QUIZ 6: CH 9 & READ CH 13
	WEEK ELEVEN	
Mar 18	Chapters 13 &17 Drugs for the Treatment of	QUIZ 7: CH 12 &26 READ CH 14, 15, 16

	Gastrointestinal Disorders Drugs for the Treatment of Respiratory Disorders	Case Studies/Discussions
	WEEK TWELVE	
Mar 25	Chapters 14, 15, 16 Drugs for the Treatment of Seizure Disorders Drugs for the Treatment of Central Nervous System Disorders Adrenocorticosteroids	QUIZ 8: CH 13&17 READ CH 18, 19 Case Studies/Discussions
	WEEK THIRTEEN	
Apr 1	Chapters 18, 19 Drugs for the Treatment of Diabetes Mellitus Drugs for the Treatment of Endocrine Disorders	QUIZ 9: CH 14, 15, 16 READ CH 20,21 Case Studies/Discussions
	WEEK FOURTEEN	
Apr 8	Chapters 20,21 Anti-neoplastic Drugs Emergency Drugs	QUIZ 10: CH 18,19 READ CH 22,23,24 Case Studies/Discussions
	WEEK FIFTEEN	
Apr 15	Chapters 22, 23, 24 Pregnancy and Breast Feeding Substance Use Disorder Natural/Herbal Products and Dietary Supplements	QUIZ 11: CH 20,21 Case Studies/Discussions
	WEEK SIXTEEN	
Apr	Research Project/Patient Information Sheets	QUIZ 12: CH 22,23,24

22	Course Review Comprehensive Final Exam Review	Case Studies/Discussions
WEEK SEVENTEEN		
Apr 27 May 2	Finals Week	

Revised and updated 26 Dec 2023

Course Student Learning Outcomes

- Identify, evaluate, and analyze drugs that may alter dental treatment and their pharmacokinetics.
- Identify, evaluate, and analyze conditions on a patient's Medical History that will affect oral health, and identify appropriate treatment options.
- Explain, list, and describe general principles of pharmacology.
- List and describe the chemistry, mechanism of action, pharmacological effects, drugs interactions, and uses in dentistry, dosage and administration of general anesthetics.
- Interpret, evaluate, and recognize emergency conditions and medicine and to formulate a plan of action when an emergency situation presents.
- Describe, explain, and list the Administration Routes, Distribution, Metabolism and Excretion of drugs and provide examples of drug interactions.
- Apply, synthesize, and utilize drug reference materials available in the dental clinic to obtain the latest treatment options and drug contraindications.
- Identify, interpret, and analyze drug classifications, drug handling laws and drug abuse potentials.
- Describe, list, and explain how to prevent drug interactions.

- Classify local anesthetic drugs according to ester and amide and how they affect dental treatment.
- Evaluate and apply knowledge of pharmacology in clinical interactions with patients.
- Differentiate, compare and contrast between local and systemic drug effects and provide examples of each.
- Evaluate types of adverse reactions- side effects, toxic effects, allergic reactions, idiosyncratic reactions and drug-drug interactions.
- Apply and utilize pharmacology knowledge when choosing self-medication, medication of dependents and understanding drugs prescribed.
- Describe, list, and explain the mechanism of action, therapeutic action and adverse reactions of autonomic drugs, non-opioid analgesics, opioid analgesics and antagonist drugs, anti-infectives, antianxiety agents, vitamins and minerals, agents used to treat oral conditions, cardiovascular drugs, anticonvulsant agents, psychotherapeutic drugs, antacids and antihistamines, antineoplastic drugs, respiratory and gastrointestinal drugs, emergency drugs, adrenocorticosteroids, and drugs used during pregnancy and breastfeeding.
- Identify, explain, and describe patterns, management, and dental concerns associated with substance abuse.
- Describe the considerations of drugs used during pregnancy and lactation.

Course Content Warnings/Trigger Warnings

There are times past in pharmacology that treatment was not as ethical as it is today. There will be a brief segment talking about this. A warning will be made in the lecture prior to discussing.

Keys for Success (how to succeed in the course)

Remember that Pharmacology has a heavy chemistry base along with chemical names. This is why chemistry was a prerequisite. I will simplify this as much as possible. The best way to prepare for this class and to remember names is to complete the assignment

of flash cards as soon as possible. If you would like to go beyond the basics, fill out flash cards of the top 100 drugs.

The lecture will have the information you will need.

Required Text or Materials



Title: Applied Pharmacology for the Dental Hygienist

ISBN: 9780323798631

Authors: Haveles

Publisher: Elsevier Science & Technology Books

Publication Date: 2023

Edition: 9th

Title: Little Dental Drug Booklet 2023-2025

ISBN: 9781591953937

Authors: Jacobsen

Publisher: LEXI-COMP INCORPORATED

Publication Date: 2023

For more information on textbook accessibility, contact Accessibility & Disability Services at ads@slcc.edu.

Class Schedule

Due Date	Assignment Name	Assignment Type	Points
	Introduce Yourself	Discussion	0
1/22	Quiz chapters 1,2	Quiz	27
1/29	Quiz Chapters 3,4	Quiz	20
2/5	Chapters 5,6 Quiz	Quiz	28
2/12	Quiz Chapters 7,8	Quiz	22

Due Date	Assignment Name	Assignment Type	Points
2/26	Quiz Chapters 10,11	Quiz	22
3/11	Quiz Chapters 9, 25	Quiz	20
3/18	Chapters 12 & 26 Quiz	Quiz	22
3/25	Chapters 13 and 17 Quiz	Quiz	26
4/1	Chapters 14,15,16 Quiz	Quiz	25
4/8	Chapters 18, 19 Quiz	Quiz	20
4/15	Chapters 20,21 Quiz	Quiz	25
4/22	Chapters 22,23,24 Quiz	Quiz	15
4/22	Flash Cards	Assignment	50
4/22	Herbal Presentation	Assignment	50
4/29	Final Exam	Quiz	122

Brief Description of Assignments/Exams

Quizzes/Exams/Flash cards/Presentation:

The specific dates for course Quizzes and Exams can be found in the course Schedule. All quizzes and exams must be taken on the day they are scheduled. **Missed quizzes and exams will be graded as ZERO.** Additionally, students will only have **one attempt to complete each quiz/exam.** Students should study the course materials thoroughly, so they are prepared for these weekly measurements. Quizzes and exams may consist of multiple choice, matching, fill in the blank, labeling, true/false, short answer and/or essay questions. Quizzes (60%) - 12 quizzes via in class or online. Final exam (20%) - The final exam will be **comprehensive** and will be given in class or in the testing center. It will consist of 100 questions in similar format as the quizzes.

Flash Card Assignment:

Students will create a drug fact flash card as assigned for (10%) of the final grade. Using a prefix, root, suffix identifying method. Link found below. The drugs.com top 200 list should be used as reference on the trade (and generic) drug names.

On a 3x5 index card the following information is to be included: In the way that will best help you study: The prefix, root, suffix, at minimum one (1) Brand (trade) name [I encourage to list as many as possible] (the link to the list of the 200 drugs below can help, or use [drugs.com](https://www.drugs.com), or [rxlist.com](https://www.rxlist.com) to help), minimal 1 and up to 3 Generic name(s) listed (if there is that many), class/ category of drug. Along with the prefix/ suffix, you will be writing out 14 vitamins and 15 minerals with this format. On a 3x5 index card include: Vitamin name, Common name, Fat or water soluble (if applicable), 1-3 food source(s), 1-3 signs of deficiency and toxicity.

Printed flash cards will receive no **(0)** points. This is to be hand written and presented to me before the day of the final.

<https://denalix.com/drug-prefix-root-and-suffix/> (This is the prefix, root, suffix page)

<https://www.hsph.harvard.edu/nutritionsource/vitamins/> (This is the vite and mineral page)

[rxlist.com](https://www.rxlist.com) (This is another great resource to find the names of the drugs. I like it a bit better than drugs dot com or the 200 list of drugs)

Research Project/ Presentation with handout:

Students will choose a natural herb from the link below or of another of their choosing with instructor approval. You will then research and present orally in class as assigned for (10%) of the final grade. Up to a five minute presentation given in front of class that includes a handout. The handout information should be contained on an 8 x11-size sheet designed to support the student's choice of format. For grading purposes, this assignment will be subject to peer as well as instructor review. See the Grading Rubric and Peer Review Sheets at the end of the syllabus At the discretion of the instructor projects may be assigned as homework or be completed as in class assignments.

The purpose of this assignment is to assist students in developing the skills to: Assess and analyze patient risk factors that may impact oral health and dental hygiene care.

Recognize the medications or agents that require special precautions or consideration prior to or during dental hygiene treatment. Recognize and use written and electronic sources of information. Evaluate published clinical and basic science research and integrate this information to provide comprehensive, evidence-based patient care/education. Promote positive values of overall health and wellness to the public and organizations within and outside the profession.

<https://www.utep.edu/herbal-safety/herbal-facts/herbal%20facts%20sheet/index.html>. (for help picking an Herb)

<https://ptcbtestprep.com/top-200-brand-and-generic-drugs/> (List of the 200 drugs)

Grading Scale

The grading scale is the current SLCC grading scale.

A+	= / >	100%
A	= / >	93% and < 100%
A-	= / >	90% and < 92%
B+	= / >	87% and < 89%
B	= / >	83% and < 86%
B-	= / >	80% and < 82%
C+	= / >	77% and < 79%
C	= / >	73% and < 76%
C-	= / >	70% and < 72%
D+	= / >	67% and < 69%

D = / > 65% and < 66%

E < 64%

A Excellent	4.0
A- Excellent	3.7
B+ Good	3.4
B Good	3.0
B- Good	2.7
C+ Average	2.4
C Average	2.0
C- Average	1.7
D+ Below Average	1.4
D Below Average	1.0
D- Below Average7
E Failure	0.0
UW Unofficial Withdrawal	0.0
W Withdrawal	0.0*
P Passing	*
I Incomplete	*
EX Extended Grade	*
AU Audit	*

- NG Non-Graded *
- M Missing Grade *
- TR Transfer Credit *
- NS Non-Credit No Show *
- PL Credit for Prior Learning *

(all information updated as of 26 Jan 2023, subject to change)

Institutional Policies

As members of our academic community, we would like to invite you to review the Institutional Syllabus which covers important policies and procedures. This document contains important links for students on the code of student rights and responsibilities, academic integrity, and grading policies, Title IX and other important acknowledgements. By familiarizing yourself with this information, you can help us create a safe and respectful environment for everyone.

You can access the document by clicking on the following link: <https://slcc.instructure.com/courses/530981/pages/institutional-syllabus>

Learning Support and Tutoring Services

We are pleased to offer a range of tutoring and learning support services to help you achieve your academic goals. Whether you need assistance with a specific subject or want to improve your study skills, you have many options for tutoring or other support.

To learn more about the services we offer and how to access them, please visit the Institutional Syllabus under the Tutoring and Learning Support tab: <https://slcc.instructure.com/courses/530981/pages/institutional-syllabus>. We encourage you to take advantage of these resources to help you succeed in your studies. If you

have any questions or would like to schedule a tutoring session, please don't hesitate to reach out to us. We are here to support you in any way we can.

Advising and Counseling Support Services

At our institution, we are committed to supporting your academic and personal growth. That's why we offer a range of advising and counseling services to help you navigate the challenges of college life. To learn more about the resources available to you and how to access them, please visit the Institutional Syllabus under the Advising and Counseling Support Services tab: <https://slcc.instructure.com/courses/530981/pages/institutional-syllabus>. Our advising team and the support centers across campus are here to support you in achieving your goals and overcoming any obstacles you may face.

Student Academic Calendar

As students you should be aware of all important dates in the semester, such as the day that courses begin and end, as well as the drop date and the last day to withdraw. To learn more about those dates, navigate to the Student Academic Calendar below:

[SLCC Student Academic Calendar](#)

Additional Policies

Attendance in class is expected/required unless SLCC calls for an online learning day.