



**Course Syllabus
SEMESTER XXXX
School of Nursing and Health Professionals**

Course Name:	Pharmacology
Course & Section Number:	DHY230-XXX
Meeting Day(s) & Time(s):	
Credits:	2
Contact Hours:	2
Text:	<u>Applied Pharmacology for the Dental Hygienist. 9th ED.</u>
Instructor's Name:*	
Office Hours & Location:	
OCC Phone:	
OCC Email:**	
Additional Contact Information:	

**Please use only Owens email for course communications.

Catalog description:

The response of the living organism to drugs is studied with particular emphasis on drugs used in dentistry. This course will cover the general principles of pharmacology and will include definitions, classifications, federal regulations and enforcement policies, drug actions and reactions, and fundamentals of prescription writing. Additionally, ethical dilemmas and principles as they pertain to drugs in dental practice will be explored throughout the course.

Prerequisite: CHM115

Course Materials:

Haveles, Elena. (2024). Applied Pharmacology for the Dental Hygienist. 9th ED. Elsevier Inc. ISBN 978-0-323-79863-1

What You Will Learn in the Course

Course Objectives:

Course will...

1. Relate the importance of pharmacology to the practice of Dental Hygiene.
2. Articulate the basic principles of pharmacology used in the study of all drugs.
3. Explore how pregnancy and breastfeeding can alter prescribing patterns, and list
4. common dental drugs that are acceptable to use pre- and perinatally.
5. Discuss the use and related pharmacology of non-opioid and opioid drugs in dentistry and medicine.
6. Present a basic overview of the autonomic nervous system, and its centrality to the understanding of many classes of drugs.
7. Provide an overview of the pharmacology of anti-infectives, with an emphasis on those used in dentistry.
8. Provide an overview of the pharmacology of anti-fungals and anti-infectives, with an emphasis on those used in dentistry.
9. Briefly discuss seizure disorders, and the drugs used to treat them, with related pharmacology.
10. Look at the most common cardiac diseases, and representative drugs from the various classes used to treat them with related pharmacology.
11. Examine various drugs used in the management of anxiety, with an emphasizing those used in dentistry.
12. Discuss common respiratory diseases and conditions, and the different classes (both prescription and OTC) of drugs used in their treatment.
13. Discuss common gastrointestinal diseases and conditions, and the different classes (both prescription and OTC) of drugs used in their treatment.
14. Provide an overview of the pharmacology of psychotherapeutic agents, with an emphasis on those used to treat depression.
15. Explore drug dependence, substance abuse and impact, including tobacco/nicotine and drugs available to treat dependence.

Student Learning Outcomes:

Students will:

Outcome	Where Assessed
Describe the basic principles of pharmacology used in the study of all medications, especially those pertaining to drug metabolism, interactions, and adverse reactions.	Quiz #1, Week 1 Review Questions, Midterm, Comprehensive Final
Describe the relevant pharmacology of drugs used in pain control, especially those used in dentistry.	Quiz #2, Week 2 Review Questions, Quiz #3, Week 3 Review Questions, Week 3 Case Study, Midterm, Comprehensive Final

Outcome	Where Assessed
Present a basic overview of the autonomic nervous system, and its centrality to the understanding of many classes of other drugs. Describe the relevant pharmacology of drugs used in treatment of cardiovascular treatment, especially those that may alter dental treatment.	Quiz #2, Week 2 Case Study, Quiz #4, Week 5 Review Questions, Week 5 Case Study, Midterm, Comprehensive Final, Project
Discuss the uses and relevant pharmacology of drugs used in dentistry (for other than analgesia).	Quiz #4/5/6/7, Week 4/6/7/8/9/10/11/12/13/14 Case Study, Week 6/7/8/9/10/11/12/13/14 Review Questions, Midterm, Comprehensive Final, Project
Articulate the role pharmacology plays in patient care, especially in the context of case studies.	Week 1-14 Case Study, Presentation

DH Program Outcomes	Where Assessed
Outcome #1 – Students will employ effective communication	Class participation during in-person and virtual lectures, Presentation
Outcome #1 – Students will demonstrate problem solving	Case Study Assignments and Review Questions, Quizzes, Midterm, Comprehensive Final
Outcome #1 – Students will access, gather and utilize information	Presentation, Weekly Assigned Reading, Assignments, Quizzes, Midterm, Comprehensive Final

Institutional General Education Competencies:

As a student at Owens Community College, you will take General Education courses as part of your degree program. While specific to the General Education courses, will be reinforced in many of your degree program major courses and may be measured in your capstone course(s) and others as identified.

Technology, Lab, and File Requirements:

Technical Requirements for e-Learning at: https://www.owens.edu/distance_ed/
 Student Help and Resources [eLearning - Owens Community College](#)
 Respondus Lockdown Browser: [Download LockDown Browser](#)

Academic Support

Disability Services Resource Center: If you have a disability or acquire one, you may be entitled to receive reasonable accommodations intended to assure you an equal opportunity to participate in and benefit from the program. To receive more information or to register for accommodations, please contact the Disability Resource Center at 567-661-7007, email disability@owens.edu, visit <https://www.owens.edu/disability/>, or stop by College Hall 124.

Tutoring Services: Owens Community College offers academic tutoring and assistance in a variety of subjects including: accounting, computing, economics, mathematics, science, and writing. For more information go to: <https://www.owens.edu/successcenters/>.

Counseling Services: Counseling Services provides assistance to students experiencing personal, educational, interpersonal/relationship, family, social, or psychological difficulties. If you feel you may benefit from this service, please contact them at counselingservices@owens.edu. More information is at <https://www.owens.edu/counseling/>.

Campus and Community Connections: The Center for Campus and Community Connections (College Hall 123) is a walk-in office created to provide retention support through resource stability initiatives and community connections. Go here for more information: <https://www.owens.edu/connection/> or contact connections@owens.edu

Owens Library: The Owens Library offers two locations (Toledo and Findlay) as well as online resources. For more information visit <https://www.owens.edu/library/>.

Students can find more information on campus resources, student support, student life, and security at this [link](#).

General Information

Student Code of Conduct: All students are expected to follow Owens Community College's Student Code of Conduct, which includes academic honesty, encompassing plagiarism. See the Board Policy for more information.

Anti-Discrimination and Harassment & Title IX/Sexual Misconduct: All students, faculty, and staff are expected to follow Owens Community College's Anti-Discrimination and Harassment Policy and the College's Title IX Policy/Sexual Misconduct Procedures and Guidelines. The College strictly prohibits and will not tolerate harassment, discrimination, intimidation, or hostile/offensive working or learning environments.

Religious Accommodations: A student seeking an accommodation for an absence permitted under Ohio's Testing Your Faith Act must provide the instructor with a written email notice with the specific dates for an absence, and must do so not later than fourteen (14) days after the first day of instruction. Alternative accommodations are not retroactive, and no academic penalty will be imposed for an absence under the policy*. The request for an alternative accommodation will be kept confidential. Students with questions about a religious accommodation under Ohio's Testing your Faith Act may contact the College's Office of Academic Affairs: provost@owens.edu. The policy may be found on the Owens website: [3358:11-2-63 Accommodation](#) for a Student Absence for the Observance of Religious Beliefs and Practices Policy

Document Collection: Throughout the semester, your instructors may ask for a variety of assignments including tests and/or quizzes for student learning of institutional general education competencies or program assessment. Please save all your class materials until the end of the semester.

Classroom Admittance: OCC classes shall only be attended by the officially registered OCC students or prospective students, instructor of record, guest lecturer, or substitute. Visitors are not

permitted to be in the classroom and should not be invited to attend or participate in the class. See [FERPA](#) regulations for more information.

Use of AI Tools: This course requires you to complete various assignments that assess your understanding and application of the course content. You are expected to do your own work and cite any sources you use properly. You are not allowed to use any artificial intelligence (AI) tools, such as chatbots, text generators, paraphrasers, summarizers, or solvers, to complete any part of your assignments. Any attempt to use these tools will be considered academic misconduct and will be dealt with according to the Owens Community College academic integrity policy. Students are expected to complete all work independently and without the assistance of AI-generated content. If you have any questions about what constitutes acceptable use of AI tools, please consult with the instructor *before* submitting your work.

Student Responsibilities & Instructor Expectations

Instructor Expectations:

This course is delivered in a traditional or asynchronous online computer format except for proctored exams which will require on-campus attendance. Students are expected to complete the assigned materials weekly.

- Monday starts the assigned week but classes will be meeting online and in person (hybrid) on Fridays.
- Assignments are due throughout the week with due dates outlined in the syllabus and on Blackboard.
- **NO** late assignments will be accepted. Exceptions will be considered for extreme circumstances.
- All assignments must be submitted via Blackboard.
- Students will complete one Presentation during the semester and upload to Blackboard. Participation is required by each student to view AND comment on each video that is uploaded. The due date will be listed in the syllabus but students can complete at any time during the semester and begin commenting and giving feedback once the videos start to upload. Requirements for the Presentation are as follows:
 - Students will select a medication covered in this course or one they have experienced from a patient in clinic. No duplicate medications will be allowed, including drugs from the same classification of medications.
 - A google doc sign-up sheet will be available and students can make their selection as early as they would like.
 - Students will describe the class of medication and give a brief description of what it is used for, what types of conditions it treats and dental contraindications, if any.
 - Students will give 5 (five) facts or ways to remember the classification of drug
 - Presentations can be recorded and uploaded to Blackboard once completed, please keep videos 3-5 minutes in length. Presentations can be creative but **MUST** remain professional.

- When commenting on a video, students can give feedback, mention if they have had any interactions with the medications in clinic (without mentioning specific patient information), etc. Responses should be at least 5 sentences long and engaging.
- Students will be required to respond to each video that is posted to receive full credit for the Presentation points.
- Every week will begin with Learning outcomes that will be achieved utilizing reading assignments, power point lectures, discussion boards, key terms, and assignments. You will have the ability to work two weeks ahead, except for Quizzes and the Midterm/Comprehensive Final. Please note: each week has a due date and all assignments for that week must be completed by that date.
- **All quizzes, Midterm and Comprehensive Final will be proctored and require use of Respondus with cameras on.**
- No make-up exams will be provided except for an excused absence.
 - **Exam absence:**
 - It is the student's responsibility to contact the course instructor immediately because of any absence.
 - A zero (0) grade will be entered for any missed exam.
 - If a student arrives late for an exam, the student may take whatever time is left, but no additional time will be allotted.
 - Make-up exams will be allowed with excused absence only and must be completed within 2 weeks.
 - **Exam retake:**
 - Any exam with a 77% or lower will require a make-up exam; up to 3 times to earn a 77% or better. HOWEVER, the points you earn on the first exam are kept and recorded regardless of your points on the exam retakes. Failure to complete this requirement will result in a failure from the program. Exam retakes need to be completed within one week.
 - **Excused absence**
 - An excused absence will be defined as:
 - Hospitalization (you, your spouse, or your children) which MUST be verified by a physician's note.
 - Death (family member) which MUST be verified by a copy of obituary or death announcement.
 - Medical appointments due to illness (you or your dependent child) which MUST be verified by a physician's note.
 - **Make-up Exams:**
 - You must contact the instructor for scheduling the make-up **within 24 hours** of the missed exam with an excused absence.

How Grades are Determined and Major Assignments

Evaluation Measure The grade points for the areas of work are as follows.	Student Learning Outcomes Assessed	Value
Assignments	1-5	360 points
Quizzes	1-5	370 points
Midterm	1-4	100 points
Presentation	1-5	70 points
Comprehensive Final	1-5	100 points
Total		1000 points

The final course grade is to be computed using the following weights.

Evaluation Measure	Value	Student Learning Outcome Assessed
Assignments:	25%	1-5
Presentation:	15%	1-5
Midterm:	15%	1-4
Quizzes (7 quizzes):	25%	1-5
Comprehensive Exam:	20%	1-5

Grading Procedure:

Grades will be calculated on the following scale

Grade	Points
A	92% and Above
B	85% to Less than 91%
C	77% to Less than 84%
D	60% to Less than 76%
F	Less than 59%

Tentative Class Assignments:

Week	SLO	Topic	Due Dates
1	1	Class – In Person <u>Chapter 1:</u> Information, Sources, Regulatory Agencies, Drug Legislation and Prescription Writing <u>Chapter 2:</u> Drug Action and Handling <u>Chapter 3:</u> Adverse Reactions • Read Chapters 1-3 • Week 1 Review Questions	
2	1, 2	**Blackboard Class** Quiz #1 <u>Chapter 4:</u> Autonomic Drugs <u>Chapter 5:</u> Nonopioid (Nonnarcotic) Analgesic • Read Chapters 4-5 • Week 2 Case Study • Week 2 Review Questions	
3	2, 3	Quiz #2 – In person <u>Chapter 6:</u> Opioid (Narcotic) Analgesics and Antagonists <u>Chapter 7:</u> Antiinfective Agents • Read Chapters 6-7 • Week 3 Case Study • Week 3 Review Questions	
4	1, 2, 3, 4, 5	**Blackboard Class** <u>Chapter 8:</u> Antifungal and Antiviral Agents <u>Chapter 9:</u> Antianxiety Agents <u>Chapter 11:</u> General Anesthetics	

Week	SLO	Topic	Due Dates
		- Read Chapters 8-9,11 - Week 4 Case Study 1-3	
5	2, 3, 4	Quiz #3 – In person <u>Chapter 12:</u> Drugs for the Treatment of Cardiovascular Diseases - Read Chapter 12 - Week 5 Case Study & Review Questions	
6	4,5	**Blackboard Class** <u>Chapter 13:</u> Drugs for the Treatment of Gastrointestinal Disorders <u>Chapter 14:</u> Drugs for the Treatment of Seizure Disorders - Read Chapters 13-14 - Week 6 Case Study 1-2	
7	4, 5	MIDTERM – In Person <u>Chapter 15:</u> Drugs for the Treatment of Central Nervous System Disorders <u>Chapter 16:</u> Adrenocorticosteroids - Read Chapters 15-16 - Week 7 Case Study 1-2	
8	4,5	**Blackboard Class** Quiz #4 <u>Chapter 17:</u> Drugs for the Treatment of Respiratory Disorders and Allergic Rhinitis - Read Chapters 17 - Week 8 Case Study & Review Questions	

Week	SLO	Topic	Due Dates
9	4,5	In-Person Class <u>Chapter 18:</u> Drugs for the Treatment of Diabetes Mellitus <u>Chapter 19:</u> Drugs for the Treatment of Other Endocrine Disorders • Read Chapters 18-19 • Week 9 Case Study 1-2	
10	4, 5	**Blackboard Class** Quiz #5 <u>Chapter 20:</u> Antineoplastic Drugs • Read Chapter 20 • Week 10 Case Study	
11	4, 5	**Blackboard Class** <u>Chapter 21:</u> Emergency Drugs <u>Chapter 22:</u> Pregnancy and Breastfeeding • Read Chapters 21-22 • Week 11 Case Study • Week 11 Review Questions	
12	4, 5	Quiz #6 – In person <u>Chapter 23:</u> Substance Use Disorder <u>Chapter 24:</u> Natural/Herbal Products and Dietary Supplements • Read Chapter 23-24 • Week 12 Case Study 1-2	
13	4, 5	**Blackboard Class** Quiz #7 - Online <u>Chapter 25:</u> Oral Conditions and Their Treatment <u>Chapter 26:</u>	

Week	SLO	Topic	Due Dates
		Hygiene-Related Oral Disorders - Read Chapters 25-26 - Week 13 Case Study 1-2	
14	4, 5	Review for Final PRESENTATIONS DUE	
15	1, 2, 3, 4, 5	**COMPREHENSIVE FINAL** In Person – Our class meets on DAY and grades need to be in by DATE . We will be taking our exam the DAY before Finals Week begins.	
16		FINALS WEEK No class. All assignments/quizzes/exams will be completed and grades posted.	

Week	SLO	Topic
1	1	Topic: Information, Sources, Regulatory Agencies, Drug Legislation, and Prescription Writing. / Drug Action and Handling / Adverse Reactions Readings: Chapter 1-3 Assignments: Week 1 Review Questions
2	2	Topic: Autonomic Drugs / Nonopioid Analgesics Readings: Chapter 4-5 Assignments: Week 2 Case Study and Review Questions Quiz: Quiz 1(Chapters 1-3)
3	1 & 2	Topic: Opioid Analgesics and Antagonists / Antiinfective Agents Readings: Chapter 6-7 Assignments: Week 3 Case Study and Review Questions Quiz: Quiz 2(Chapters 4-5)
4	1 & 2	Topic: Antifungal and Antiviral Agents / Antianxiety Agents / General Anesthetics Readings: Chapter 8-9,11 Assignments: Week 4 Case Study and Review Questions
5	1 & 2	Topic: Drugs for the Treatment of Cardiovascular Diseases Readings: Chapter 12 Quiz: Quiz 3 (Chapters 6-9,11) Assignment: Week 5 Case Study and Review Questions
6	3	Topic: Drugs for the Treatment of Gastrointestinal Disorders / Drugs for the Treatment of Seizure Disorders Readings: Chapter 13-14 Assignment: Week 6 Case Study 1-2
7	1-3	Topic: Drugs for the Treatment of Central Nervous System Disorders / Adrenocorticosteroids

Week	SLO	Topic
		Readings: Chapter 15-16 Exam: MIDTERM Assignment: Week 7 Case Study 1-2
8	3	Topic: Drugs for the Treatment of Respiratory Disorders and Allergic Rhinitis Readings: Chapter 17 Quiz: Quiz 4(Chapters 15-16) Assignment: Week 8 Case Study and Review Questions
9	2 & 3	Topic: Drugs for the Treatment of Diabetes Mellitus / Drugs for the Treatment of Other Endocrine Disorders Readings: Chapter 18-19 Assignment: Week 9 Case Study 1-2
10	3	Topic: Antineoplastic Drugs Readings: Chapter 20 Quiz: Quiz 5 (Chapters 17-19) Assignment: Week 10 Case Study and Review Questions
11	4	Topic: Emergency Drugs / Pregnancy and Breastfeeding Readings: Chapter 21-22 Assignment: Week 11 Case Study and Review Questions
12	4	Topic: Substance Use Disorder / Natural/Herbal Products and Dietary Supplements Readings: Chapter 23-24 Quiz: Quiz 6(Chapters 20-22) Assignment: Week 12 Case Study 1-2
13	5	Topic: Oral Conditions and Their Treatment / Hygiene-Related Oral Disorders Readings: Chapter 25-26 Quiz: Quiz 7(Chapters 23-24) Assignment: Week 13 Case Study 1-2 and Review Questions
14		THANKSGIVING BREAK Presentations Due
15	1-5	REVIEW WEEK Exam: Comprehensive Final
16		FINALS WEEK **Our Final will be taken DATE due to our class meeting on Fridays. There is no scheduled class during Week 16**

Disclaimer: The instructor reserves the right to amend this syllabus as deemed necessary and will communicate such amendment to the students in the course. Please note that while unlikely, there is a possibility courses might need to change the delivery method due to external issues like public health concerns, weather issues, etc. If this happens, the college will communicate any changes via email and/or other communication methods.

Last Updated **DATE**: This is just to give you a guide as to what we are going to cover in this course and when.