

PROFESSIONAL EDUCATION

INSTITUTIONAL COURSE NUMBER

CLINICAL PHARMACOLOGY A Review for Oral Healthcare Providers

Prototypical Syllabus

Course Director: _____

Preferred Mode of Communication: _____

Office Location: _____

Office Hours: _____

Course Objective

The overall course objective, reflected in the 14 modules, is to (1) present a review of general principles of pharmacology, (2) provide best available evidence-based information on therapeutic agents prescribed by oral healthcare providers, and (3) discuss the rationale for and clinical implications of therapeutic agents in the top 200 dispensed by U.S. community pharmacies and prescribed by other healthcare providers.

Primary Educational Goal

To provide a framework (1) for the use of therapeutic agents for the treatment or management of oral problems; (2) for understanding the clinical implications of medical drug therapy; and (3) for critical thinking in discussing the reciprocal influences of drug-, patient-, and procedure-related variable in compliance with elements of accreditation standards for dental, dental hygiene, and dental assistant educational programs.

Educational Outcomes

Upon completion of the 14 modules, participants should be able to:

- Demonstrate an understanding of general principles of pharmacotherapy as they apply to ethical decision making and professional responsibility related to prescribing drugs.
- Demonstrate an understanding of the components and legal implications of writing a prescription, and be able to produce acceptable prescriptions for a variety of drugs.
- Demonstrate an understanding of drugs of abuse and associated legal and regulatory standards when prescribing drugs with an abuse potential.
- Demonstrate an understanding of basic mechanisms of intraoperative pain; the pharmacology of local anesthetics; select the most appropriate local anesthetic to manage intraoperative pain; and discuss potential adverse drug reactions.
- Demonstrate a basic understanding of the sympathetic nervous system; the physio-pharmacology of epinephrine; the appropriate use of epinephrine in local anesthetic agents; and discuss potential adverse drug reactions.
- Demonstrate an understanding of basic mechanisms of acute pain; the pharmacology of analgesics; select the most appropriate analgesic to treat acute odontogenic pain; and discuss potential adverse drug reactions.
- Demonstrate an understanding of the microbiology of odontogenic infections; the pharmacology of antibacterial agents; select the most appropriate preventive/therapeutic antibacterial agent; and discuss potential adverse drug reactions.

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- Demonstrate an understanding of the microbiology of viral infections; the pharmacology of and indications for antiviral agents; select the most appropriate antiviral agent for the treatment of oro-labial herpetic infection; and discuss potential adverse drug reactions.
- Demonstrate an understanding of the microbiology of fungal infections; the pharmacology of and indications for antifungal agents; select the most appropriate antifungal agent for a candidal infection; and discuss potential adverse drug reactions.
- Demonstrate an understanding of basic mechanisms of organ-specific diseases; the pharmacology of and indications for the top 200 prescription drugs; and disease-, treatment-, and procedure-related variables essential for risk stratification of patients.
- Demonstrate an understanding of the mechanisms of adverse drug reactions; recognize the clinical manifestations of adverse drug reactions; when faced with an adverse drug reaction take appropriate action.

Outcome Assessment

Predicated on institutional policy, for example:

Outcome assessment related to knowledge gained from the online modules will be based on multiple-choice examinations at the end each module. In addition, case-based small group discussions will be used to appraise knowledge of therapeutic concepts - judged on a pass/fail scale. Students must meet all educational goals to pass the course.

Grading Policy

Predicated on institutional policy, for example:

The responsibility for assigning grades rests exclusively with the Course Director. Students are expected to successfully complete all fourteen online modules within a specified time period and participate in all small group discussions. Students are allowed as many attempts on each module as may be necessary to obtain a passing grade.

Grade Scale

Predicated on institutional policy, for example:

- The following letter grades will be used to list final course grades on student transcripts: A, B, C, D, F, and I (incomplete).
- The Course Director will use the following grading scale when converting percentages to letter grades: A = 90-100%, B = 80-89%, C = 70-79%, D = 60-69%, and F = < 59%.
- For calculation of a student's GPA: A=4, B=3, C=2, D=1, F=0

Missed Exam/Practicum Policy

Predicated on institutional policy, for example:

If a student is unable to complete the online learning modules in a timely fashion or attend the small group discussions, the student must so inform the Course Director and the Office of Student Affairs in writing. Failure to pass the written examination or participate in small group discussions will result in an "F" grade in the course.

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Remediation Policy

Predicated on institutional policy, for example:

The decision to allow a student to remediate an “F” grade rests with the Academic Performance Committee. Remediation may be recommended according to the following criteria:

- A student with an “F” grade may be allowed to remediate within a specified period of time and will be awarded a grade of “D” or “C.”
- If a student has less than a 2.0 GPA, but has no “F” grades, the Academic Performance Committee may allow remediation for a “D” grade provided a “C” grade would bring the GPA up to a 2.0.

Attendance Policy

Predicated on institutional policy, for example:

The course is designed to accommodate self-paced learning consisting of online modules augmented by case-based small group discussions. Completion of each of the online module is expected prior to the corresponding small group discussion.

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Course Contents

Module	Title
Module I	ce486 - Basic Pharmacology: Part I – Pharmacodynamics and Pharmacokinetics Principles
Module II	ce506 - Basic Pharmacology: Part II - Pharmacotherapeutic Issues, Drug Regulations, and Prescription Writing
Module III	ce449 - Pharmacology of Local Anesthetics: Clinical Implications
Module IV	ce547 - Epinephrine: Friend or Foe?
Module V	ce442 - Pharmacology of Analgesics: Clinical Considerations
Module VI	ce475 - Adjunctive and Prophylactic Use of Antibacterial Agents in Dentistry
Module VII	ce538 - Pharmacology of Antifungal and Antiviral Agents
Module VIII	ce541 - Pharmacology of Selected Therapeutic Agents in Oral Medicine
Module IX	ce581 - Cardiovascular Drugs Our Patients Take
Module X	ce509 - Endocrine and Metabolic Agents in the Top 200: Clinical Implications
Module XI	ce539 - Pharmacology of the Central Nervous System: Clinical Implications
Module XII	ce540 - Pharmacology of the Respiratory, Gastrointestinal and Genitourinary Drugs: Clinical Implications
Module XIII	ce536 - Adverse Drug Reactions – Part I
Module XIV	ce537 - Adverse Drug Reactions – Part II

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Other Resources

- Commission on Dental Accreditation. American Dental Association. Accreditation Standards for Dental Education Programs – July 1, 2013. http://www.ada.org/~media/CODA/Files/predoc_2013.ashx
- Commission on Dental Accreditation. American Dental Association. Accreditation Standards for Dental Hygiene Education Programs – January 1, 2013. <http://www.ada.org/~media/coda/files/dh.ashx>
- Commission on Dental Accreditation. American Dental Association. Accreditation Standards for Dental Assisting Education Programs – January 1, 2014. <http://www.ada.org/~media/CODA/Files/da.ashx>
- Commission on Dental Accreditation of Canada. Accreditation Requirements for Dental Education Programs – Nov. 30, 2013. www.cda-adc.ca/cdacweb/en
- Commission on Dental Accreditation of Canada. Accreditation Requirements for Dental Hygiene Education Programs – Nov. 30, 2011. www.cda-adc.ca/cdacweb/en
- Commission on Dental Accreditation of Canada. Accreditation Requirements for Dental Assisting Education Programs – Nov. 30, 2010. www.cda-adc.ca/cdacweb/en