

MIDWESTERN STATE UNIVERSITY  
DENTAL HYGIENE PROGRAM

## PHARMACOLOGY (DNHY 4013) SYLLABUS - SPRING 2020

DAY/TIME: Monday 10:00 -11:30 AM in Centennial Hall, Room 103B  
Wednesday 10:00 – 11:30 AM in Centennial Hall, Room103B

INSTRUCTOR: Ray H. Hyde, DDS  
Centennial Hall, Room 128  
Telephone/Text: 940-704-7847  
Email: rayhhyde@gmail.com

### REQUIRED TEXTS:

***APPLIED PHARMACOLOGY FOR THE DENTAL HYGIENIST, 7TH ED., HAVELES***

***DENTAL DRUG REFERENCE, 2ND ED, PICKET & TEREZHALMY***

Textbooks Purchased for Previous DH Courses that will be utilized in Pharmacology.

***MEDICAL EMERGENCIES IN THE DENTAL OFFICE, 6TH ED, MALAMED***

***ANATOMY OF THE HEAD AND NECK, 3RD ED, FEHRENBACH & HERRING***

Supplemental Resource Available from the Program

***HANDBOOK OF LOCAL ANESTHESIA, 6TH ED, MALAMED***

### COURSE DESCRIPTION: As listed in the most current MSU Catalog

DNHY 4103 Pharmacology 3(3-0)

Study and exercise concerning the general principles of pharmacology and of pharmaceuticals. Emphasis on pain relieving drugs, antibiotics and the anesthetics used in dentistry. Includes nitrous oxide-oxygen conscious sedation and management of drug related emergencies.

#### Course Purpose:

Through lecture and discussion, dental hygiene students will become familiar with drug most often used and/or prescribed by dental offices as well as drug groups used to treat medical conditions and medical emergencies. Emphasis will be placed on appropriate and thorough evaluation of patient medical history forms. The key element in evaluation of patient medical histories is the ability to quickly utilize reference material to analyze the patient's physical status and to determine if modifications or the treatment plan is required to provide safe and effective treatment.

Discussion of the cranial and autonomic nervous systems is included as necessary to understand the effect of many drugs with special emphasis on anatomy relative to local anesthesia.

#### Course Objectives:

Given reading and written homework assignments, lecture and class discussion, upon successful completion of this course the student should be able to:

1. Define and appropriately use the terminology associated with pharmacology.
2. Use appropriate reference sources to evaluate a drug.
3. Write and interpret a prescription.

4. Describe the controlled substances act and explain how it affects the dental office.
5. Identify drug groups used in dentistry and discuss their indications, dosage, pharmacokinetics, pharmacologic effects, adverse reactions and drug interactions.
6. Identify and evaluate drugs used to treat various medical conditions and determine how they might modify dental hygiene treatment planning.
7. Identify the medical conditions that require antibiotic prophylaxis.
8. Identify dental procedures that cause a transient bacteremia and therefore may require antibiotic prophylaxis.
9. Describe the standard regimen and alternatives for prophylactic antibiotic premedication in dental treatment.
10. Identify and discuss special situations that may be affected by the use of pharmacologic agents i.e. pregnancy and breast feeding.
11. Compute proper dosages for local anesthetics using accepted formulas and manufacturer recommendations.
12. Demonstrate a general understanding of the function of the autonomic nervous system.
13. Identify nerves associated with dental local anesthesia and discuss the effects of local anesthesia on them.

Specific objectives are presented for each content area and class session.

#### Course Evaluation:

EXAMINATION 1	20%
EXAMINATION 2	20%
EXAMINATION 3	20%
EXAMINATION 4	20%
EXAMINATION 5	20% as part of Final Exam

Examinations will be comprehensive in nature, but will focus on material presented since the previous examination. Students missing an exam due to illness will be allowed to make up the exam on the day of their return to school. No grade higher than a 90 will be given for make-up examinations. Students will be allowed to make up only one (1) exam per semester.

The Final Examination (Junior 2nd Semester Final Exam) is a 4-hour examination which will serve as the combined final exam for each of the courses offered in the 2nd semester of the dental hygiene curriculum; Dental Hygiene 2, Periodontology, Radiology II and Pharmacology. The exam will consist of two sections: (1) approximately 200 multiple choice questions covering the content of the courses listed above and (2) a case based portion.

The case based portion of the exam (50-75 items) will incorporate content from ALL dental hygiene Courses from the first and second semesters. The case based portion will be figured into the final exam as bonus points. This format, rather than individual course final exams, will more effectively assess the student's ability to combine didactic and clinical content, as well as aid in preparing the student for the National Board Dental Hygiene Exam.

Grading: Students will receive a grade on Part I based on the 50 multiple choice items pertaining directly to PHARMACOLOGY CONTENT. Points earned on Part 2's case based items pertaining to Pharmacology will be added to Part I as bonus points to determine the final exam grade for this course. The values of Part 2 items will be determined by the individual course instructor. Therefore, the points earned for Part 2 items will vary between courses.

#### HOMEWORK ASSIGNMENTS

At the discretion of the instructor, homework concerning the impending chapter will be assigned. This

work will be due at the beginning of the lecture period in which this material will be discussed. As indicated above, the sum of the grades on assigned homework will be equivalent to one examination and will be factored into the final course grade accordingly. Homework assignments turned in late will receive half credit.

## DENTAL HYGIENE PROGRAM GRADING SCALE

A = 92 - 100

B = 83 - 91

C = 75 – 82 75 AVERAGE IS THE MINIMUM ACCEPTABLE GRADE TO PASS

D = 65 – 74

### ATTENDANCE:

More than two (2) absences for any reason will result in a loss of 5 points from final course grade for EACH absence over the allowed 2. In cases of extreme illness and/or hospitalization, individual decisions may be made. Two (2) tardies will be the equivalent of one (1) absence. Students must be present for the entire class period to get credit for a class session. Students leaving class early will be counted as absent.

**PHONE USE:** Cell phone use (texting or verbal) is extremely disruptive to your fellow classmates and to the faculty teaching your course. Therefore, the use of cell phones will not be tolerated, FOR ANY REASON. If you utilize your cell phone it will be confiscated for the remainder of the scheduled day. Repeat offenders will be asked to leave the classroom and will be required to meet with the faculty and the chair of the Dental Hygiene Department. In cases of emergencies, please notify spouses, family and friends to contact you via the program secretary at 397-4764.

Water bottles, cell phones, hand-held calculators/computers are not allowed in the room during any examination. Possession of any of these items during an exam will be construed as academic dishonesty and will be dealt with accordingly.

### ACADEMIC DISHONESTY

Dental Hygiene Honor System:

All Dental Hygiene courses adhere to the MSU Code of Conduct. In particular, academic dishonesty, however small, creates a breach in academic integrity. A student's participation in this course comes with the expectation that his or her work will be completed in full observance of the MSU Code of Student Conduct. A student should consult the current Student Handbook for answers to any questions about the code. Many components of dental hygiene courses are designed to be highly interactive with students helping each other learn. Students are encouraged to take full advantage of many resources available including course resources, Internet sites, other textbooks and journals, faculty, and peers when answering objectives. This interactive collegial learning environment is conducive for life-long learning.

Cheating includes, but is not limited to, (1) use of any unauthorized assistance in taking quizzes, tests, or examinations; (2) dependence upon the aid of sources beyond those authorized by the instructor in writing papers, preparing reports, solving problems, or completing other assignments; or (3) the acquisition of tests or other academic materials belonging to the university faculty or staff without permission.

Plagiarism includes, but is not limited to, the use of, by paraphrase or direct quotation without correct citation in the text and on the reference list, the published or unpublished works of another person. Students may NOT submit papers and assignments that they have previously submitted for this or other courses. The use of materials generated by agencies engaged in "selling" term papers is also plagiarism. Students are encouraged to review the tutorials and suggested websites for more

information about plagiarism.

Academic dishonesty (cheating, plagiarism, etc.) will not be tolerated in this class. Whenever a student is unsure of whether a particular situation will be interpreted as academic dishonesty, he/she should ask the instructor for clarification. If students are guilty of academic dishonesty, a grade of zero (0) will be given for the quiz, assignment, etc. Cases may also be referred to the Dean of Students for possible dismissal from the university.

#### PLEASE NOTE

By enrolling in this course, the student expressly grants MSU a "limited right" in all intellectual property created by the student for the purpose of this course. The "limited right" shall include but shall not be limited to the right to reproduce the student's work product in order to verify originality and authenticity, and for educational purposes. Specifically, faculty may submit student papers and assignments to an external agency to verify originality and authenticity, and to detect for plagiarism

#### The Americans with Disabilities Act:

Midwestern State University does not discriminate on the basis of an individual's disability and complies with Section 504 and the Americans with Disabilities Act in its admission, accessibility, and employment of individuals in programs and activities. MSU provides academic accommodations and auxiliary aids to individuals with disabilities, as defined by law, who are otherwise qualified to meet academic employment requirements. For assistance call (940) 397-4618 or (940) 397-4515. It is the student's responsibility to declare any disabilities. After declaration, preferably at the beginning of each semester, the student needs to contact individual instructors to determine any reasonable accommodations that may be required.

#### MSU COHSHS Student Conduct Appeals Committee

All Midwestern State University (MSU) students may legitimately appeal a course grade if 1) the student has not been evaluated according to the same criteria as his or her classmates, or 2) an error has been made in grading and/or posting (MSU Student Handbook, p. 37.) In addition, the Office of the Dean of Students has the responsibility to enforce standards of conduct for students as outlined in the MSU Student Handbook (p. 70-80).

When enrolled in the College of Health Sciences and Human Services (COHSHS), students are often assigned to community agencies, such as health care facilities, social service agencies, or athletic environments, as part of their academic process. During these experiences, the student is expected to behave in a manner required of professionals working in this environment. COHSHS students may also be required to successfully complete a licensing/certification process following graduation. As a result, students in these programs are often held to a different academic and/or behavioral standard than students in other MSU programs. For example, students may not be allowed to progress in a program if they have been unsuccessful (D or F) in a certain number of courses in the major. In these circumstances, COHSHS faculty and administration, all of whom have had similar professional experience, may make decisions which negatively impact students' programmatic progress.

COHSHS students have a right to a review of decisions made by the program faculty, which prevent individuals from progressing in their program in a timely manner. However, those who participate in the review must understand the context of the professions involved. Therefore, issues concerning the professional conduct of students in the COHSHS will NOT be brought to the University Grade Committee, but to the COHSHS Student Conduct Appeals Committee. Specifically, the COHSHS Student Conduct Appeals Committee will review faculty decisions related to student conduct in a clinical experience, internship, or other work-related environment that negatively impacts the student's academic progress. This conduct may include behavior which is prohibited by licensing and/or professional standards or departmental policy.

Student removal from a program because of a) professional conduct issues or b) failure to maintain academic standards required specifically by the program\*

SEE COHSHS WEB SITE FOR A COMPLETE COPY OF THIS POLICY