

MDCA 1448-103-HY Pharmacology and Administration of Medication Spring 2025 Thursday 9:00am – 12:00pm

Instructor Information: Ashley Rivera A.A.S., CMA, arivera2@com.edu,

Office 409-933-8231

Student hours and location: Thursday 12:30am - 2:30pm STEAMS Bldg. Rm 235

Required Textbook: Medical Assisting, Both, Whicker, and Wyman 8th Edition, McGraw-Hill

Publisher. ISBN: 978-1-259-60859-9

Required Textbook: Student Workbook for Use with Medical Assisting, Booth, Whicker, and Wyman, 8th Edition, McGraw-Hill Publisher. ISBN: 978-1-259-47702-3

Course Description: Introduction to concepts and application of pharmacological principles. Focuses on drug classification, principles, and procedures of medication administration, systems, and conversions, calculation of drug problems, and medico-legal responsibilities of medical assistant.

Course Prerequisite: Students must have passed MDCA 1309, MDCA 1302, MDCA 1305 and MDCA 1443 with a "C" (75%) or better to enroll in this class

Course Requirements: This is a Hybrid (HY) type course that requires classroom attendance (on campus) and online participation through Brightspace. For the online portion of the course, you are required to log into Brightspace of a minimum of 3 hours per week. You will also be required to wear a uniform consisting of grape-colored scrubs and appropriate shoes.

In order to successfully complete MDCA 1448, the student is responsible for the following:

- 1. Adhere to attendance policy.
- 2. Complete all assignments as designated in the course outline and/or schedule.
- 3. Pass all written guizzes and exams with a minimum grade of 75%.

- 4. Complete lab skills with a minimum grade of 90%.
- 5. Adhere to Dress Code

Determination of Course Grade/Detailed Grading Formula (methods of evaluation to be employed to include a variety of means to evaluate student performance): As a student you are required to complete all lessons, assignments, and test as part of each course within the program. Your semester grade will be comprised of:

Grading Scale:

Homework/Assignments	15%	A = 90.0% to 100%
Attendance/Lab Participation	15%	B = 80.0% to 89.9%
Drug Card Project	10%	C = 75.0% to $79.9%$
Quiz	10%	D = 70% to $74.9%$
Mid-Term	20%	F = 0 to 70%
Final	30%	
Total	100%	

Please note: A student must receive a "C" (75%) or better"." If a student receives a grade of a "D", or "F" for the same MDCA course on two occasions, the student will not be eligible to continue in the Medical Assistant Program".

The Medical Assisting program uses a competency-based evaluation process that provides the students with three attempts to pass. If the student completes a competency on their first attempt, the student will earn a grade of 100%. If the student completes on their second attempt, the student will earn a grade of 90%. If the student completes on their third attempt, the student will earn a grade of 80%. Should the competency not be passed with an 80% or higher, the student will be required to repeat the course. Competency evaluations are averaged at the end of term for the student's final grade. A student must receive a "C" (75%) or better". "If a student receives a grade of a "D", or "F" for the same MDCA course on two occasions, the student will not be eligible to continue in the Medical Assistant Program

Make-Up Policy: Students that cannot complete assignments on time must contact the instructor. Parameters for make-up work will be made at the discretion of the instructor and may not be an option, depending on the circumstances. Furthermore, students that cannot take an exam within the allotted time must contact the instructor in order for the test to be *considered* for an additional attempt. The percentage of each activity will weight in the final grade, regardless of the student participates in the activity or test. Keep in mind, you must contact the instructor and make arrangements for submission BEFRORE the due date, a late submission will be given a score of zero. Do not expect the instructor to remind you.

Late Work: Late work is defined as work not turned in when a student is present in class. Late work may be turned in with ten points off for each day the work is late up to an average of 70% or 2 days. All class work is due on the day it is given. Any class assignment not turned in on time will be considered late. All homework assignments are due on the assigned day – no exceptions! Homework assignments not turned in the next class day will be given a grade of zero. *Quizzes cannot be made up. If you miss a quiz, you will receive a grade of zero, and it*

<u>Mid-term and Exam make-ups will not be allowed unless there is an emergency (of the student), and I must be notified before the time of the exam.</u>

Attendance Policy: Students are expected to attend every class and to be on time. Students who are more than 5 minutes late may be counted absent by the instructor. If an absence occurs, it is mandatory for the student to call my office (409-933-8231) or email and leave a reason for the absence. A student may be dropped for non-attendance after 3 absences. Leaving the class early (before being released by the instructor) will result in an absence. More than three (3) absences would prohibit students from successful completion of this course (Instructors Judgment). Attendance will be checked daily by the instructor. Students are expected to attend all lectures. Any student who has missed 10% of class time will be required to make-up the hours by appointment with the instructor if the absence is excused (MUST HAVE DR. NOTE) after third absence. If the student fails to make up the required hours, the student will be withdrawn from the program by the program director. It's recommended to log into Brightspace courses at least 2 or 3 times a week to read content and complete graded activities. It is the responsibly of the student to maintain the pace of the course recommended in the Course Schedule and to submit all grades activated before or by its due date. Students not logging into the course 2 to 3 times a week can be dropped at the instructor's discretion. In order to take the RMA exam, you must have 720 Instructional and 200 Clinical hours.

Communicating with your instructor: I check my e-mail and course mailbox and discussion areas daily Monday through Friday. For any course related questions please email me through Brightspace. I will respond to your phone calls and e-mails within 24 hours or less. However, I may not always be able to respond to e-mails sent over the weekend until Monday Morning. I will communicate changes in or new assignments within 48 hours. When leaving a message or e-mail please state your name and student id.

Student Learning Outcomes:

might affect your average.

SLO	Learning Outcomes	Maps to Core Objective	Assess by Activity
SLO #1:		Communication Skills	Skills Lab

SLO #2:		Critical Thinking Skills	Quizzes
SLO #3:	Demonstrate knowledge on medical office business management procedures.	Communication Skills	Assignments

Academic Dishonesty: Any incident of academic policy will be dealt with in accordance with college policy and Student Handbook. Academic dishonesty – such as cheating on exams is an extremely serious offense and will result in a **grade of zero** on that exam and the student will be referred to the Office of Student Conduct for appropriate discipline action.

Student Concerns: If you have any questions or concerns about any aspect of this course, please contact me using the contact information previously provided. If, after discussing your concern with me, you continue to have questions, please contact Kay Carrier, Allied Health Careers Chairperson at 409-933-8414 / kcarrier3@com.edu.

Notice to Students Regarding Licensing: Effective September 1, 2017, HB 1508 amends the Texas Occupations Code Section 53 that requires education providers to notify potential or enrolled students that a criminal history may make them ineligible for an occupational license upon program completion. The following website provides links to information about the licensing process and requirements:

Course Outline:

Pharmacology

Dates	Lecture/Online	Gradable Activities	Due Date
Jan 16 th	Ch. 51 Principles of Pharmacology	Homework, Assignments Connect Assignments, Discussions and Quiz	To be announced
Jan 23 rd	Lab/Assignment of Drug Cards Project	Homework, Assignments Connect Assignments, Discussions and Quiz Drug Card Assignment	To be announced
Jan 30 th	Chapter 51 Review		

Feb 6 th	Test #1 Chapter 51 Ch.52 Dose Calculations	Homework, Assignments Homework, Assignments Connect Assignments, Discussions and Quiz	To be announced
Feb 13 th	Lab Procedure Classwork	Homework, Assignments Connect Assignments, Discussions and Quiz	To be announced
Feb 20 th	Chapter 52 Review		Due Drug Cards
Feb 27 th	Chapter 52 Test # 2 Ch 53 Medication Administration Lab	Homework, Assignments Connect Assignments, Discussions and Quiz	To be announced
Mar 6th	Procedure 53-1 Lab Procedure 53-2		
Mar 13 th	Lab Procedure 53-3 Lab Procedure 53-4 Lab Procedure 53-5 Lab Procedure 53-6		
Mar 17- 21	Spring Break		
Mar 27 th	Help Week		To be announced
Apr 3 rd	Lab Skills Test	Homework, Assignments Connect Assignments, Discussions and Quiz	
Apr 10 th	Review for Chapter 53		
Apr 17th	Chapter 53 Test # 3 Ch. 55 Nutrition and Health	Homework, Assignments Connect Assignments, Discussions and Quiz	
Apr 24 th	Procedure 55-1 Complete Skills		Food Assignment
May 1 st	Review		
May 8 th	Final Exam		

^{*}This Schedule is subject to change at the discretion of the instructor.

**Textbook assignments will be assigned in class.

Entry Level Competencies for the Medical Assistant taken from the 2015 Standards and Guidelines for the Medical Assisting Educational Programs:

This course includes the following competencies: (Cognitive, Psychomotor, Affective)

Knowledge Based:

- 1.C.11 Identify the classification of medications including: (a). Indications for use. (b) Desired Effects. (c) Side Effects. (d) Adverse Reactions.
- 1.C.12 Identify quality assurance practices in health care.
- 11.C.1. Demonstrate knowledge of basic math computations.
- 11.C.2. Apply mathematical computations to solve equations.
- 11.C.3. Define basic units of measurement in: (a) The metric system. (b) The household system.
- 11.C.4 Convert among measurement systems.
- 11.C.5. Identify abbreviations and symbols used in calculation medications dosages.
- Ill.C.5. Define the principles of standard precautions.
- lll.C.6. Define personal protective equipment (PPE)
- IV.C.1. Describe dietary nutrients including (a) Carbohydrates. (b) Fats. (c) Protein. (d) Minerals. (e) Electrolytes. (f) Vitamins, (g) Fibers. (h) Water.
- IV.C.2. Define the functions of dietary supplements.
- IV.C.3. Identify the special dietary needs for (a) Weight control. (b) Diabetes (c) cardiovascular disease, (d) Hypertension.(e) Cancer. (f) Lactose Sensitivity. (g) Glutenfree. (h) Food Allergies.
- 1.P.4. Verify the rules of medication administration: (a) Right Patient. (b) Right Medication. (c) Right Does. (d) Right Route. (e) Right time. (f) Right Documentation.
- I.P.5. Select proper sites for administering parental medication.
- I.P.6. Administer oral medications.
- 1.P.7. Administer parenteral (excluding IV) medications.
- 11.P.1. Calculate proper dosages of medication for administration.
- IV.P.1. Instruct a patient regarding a dietary change related to a patient's special dietary needs.
- X.P.3. Document patient care accurately in the medical record
- A.2. Reassure a patient.
- A.3. Demonstrate empathy for patient's concern.

Institutional Policies and Guidelines

Grade Appeal Process: Concerns about the accuracy of grades should first be discussed with the instructor. A request for a change of grade is a formal request and must be made within six months of the grade assignment. Directions for filing an appeal can be found in the student handbook https://www.com.edu/student-ervices/docs/Student_Handbook_2024-2025_v2.pdf. An appeal will not be considered because of general dissatisfaction with a grade, penalty, or

outcome of a course. Disagreement with the instructor's professional judgment of the quality of the student's work and performance is also not an admissible basis for a grade appeal.

Academic Success & Support Services: The College of the Mainland is committed to providing students with the necessary support and tools for success in their college career. Support is offered through our Tutoring Services, Library, Counseling, and through Student Services. Please discuss any concerns with your faculty or an advisor.

ADA Statement: Any student with a documented disability needing academic accommodations is requested to contact Kimberly Lachney, Student Accessibility Services Coordinator Phone: 409-933-8919 Email: AccessibilityServices@com.edu Location: COM Doyle Family Administration Building, Student Success Center

Textbook Purchasing Statement: A student attending College of the Mainland is not under any obligation to purchase a textbook from the college-affiliated bookstore. The same textbook may also be available from an independent retailer, including an online retailer.

Withdrawal Policy: Students may withdraw from this course for any reason prior to the last eligible day for a "W" grade. Before withdrawing students should speak with the instructor and consult an advisor. Students are permitted to withdraw only six times during their college career by state law. The last date to withdraw from the 1st 8-week session is February 26th. The last date to withdraw from the 16-week session is April 21st. The last date to withdraw for the 2nd 8-week session is April 30th.

 F_N Grading: The F_N grade is issued in cases of *failure due to a lack of attendance*, as determined by the instructor. The F_N grade may be issued for cases in which the student ceases or fails to attend class, submit assignments, or participate in required capacities, and for which the student has failed to withdraw. The issuing of the F_N grade is at the discretion of the instructor. The last date of attendance should be documented for submission of an F_N grade.

Early Warning Program: The Student Success Center at College of the Mainland has implemented an Early Alert Program because student success and retention are very important to us. I have been asked to refer students to the program throughout the semester if they are having difficulty completing assignments or have poor attendance. If you are referred to the Early Alert Program, you will be contacted by someone in the Student Success Center who will schedule a meeting with you to see what assistance they can offer in order for you to meet your academic goals.

Nondiscrimination Statement: The College District prohibits discrimination, including harassment, against any individual on the basis of race, color, religion, national origin, age, veteran status, disability, sex, sexual orientation, gender (including gender identity and gender expression), or any other basis prohibited by law. Retaliation against anyone involved in the complaint process is a violation of College District policy.

Tardiness Policy: Class starts at 9:00 and students arriving 5 minutes late result in a tardy by the instructor and the instructor may close the door and not allow further entrance until break time or until the instructor acknowledges their approval to enter will be lock. You must communicate with your instructor before class starts by email or voice mail. After 10 minutes all tardies will equal one absence. This includes all breaks during class time which are 10 minutes each. It will be the student's responsibility to make up for the missed class work. **This includes All breaks during any on-campus class times.** Failure to interact with course content via Brightspace/D2L as indicated on the Course Schedule and module overview pages in Brightspace/D2L can likewise negatively impact a student' final course grade. Unless arranged by the instructor BEFORE the due date, a late submission will be given a score of zero. Once the class is closed it WILL NOT be reopened.

Weekly Quizzes: <u>Please Note</u>—The week begins on Thursday and ends Wednesday at midnight. Weekly quizzes will be given in class every Thursday at the beginning of class and they will appear on the calendar. Late work may not be accepted unless individuals' arrangements have been made with me prior to the due date and time. I will e-mail you if I make any adjustments to the calendar. If you are not ready at the start of class, you will not be able to test. <u>Quizzes cannot be made up. No exceptions.</u>

Cell Phone Use: Cell phone use is <u>strictly prohibited</u> during any lab/class session. Please keep in "silent" mode during lectures and be respectful of instructors and other students. Should you need to answer the call, please do so outside of the classroom. Due to cheating in the past, we cannot allow any wireless devices to be on during the tests. Failure to comply will result in dismissal of class for that day. You will receive one verbal warning, one written warning, and on the third warning you will be asked to leave the class for that class period. If you are asked to leave the class more than two times you will have to turn in your cell phone to instructor before each class period for the remainder of the semester

Use of Camera and/or Recording Devices: As a student active in the learning community of this course, it is your responsibility to be respectful of the learning atmosphere in your classroom. To show respect for your fellow students and instructor, you will turn off your phone and other electronic devices and will not use these devices in the classroom unless you receive permission from the instructor. Use of recording devices, including camera phones and tape recorders, is prohibited in classrooms, laboratories, faculty offices, and other locations where instruction, tutoring, or testing occurs. Students with disabilities who need to use a recording device as a reasonable accommodation should contact the Office for Students with Disabilities for information regarding assistance.

Class Activities: Course topics are introduced and discussed during classroom sessions. Additional group exercises and workbook activities are conducted throughout the class meetings. General, ongoing feedback for assessments and assignments will be conducted before and after the assigned due dates.

Online Activities: Any quiz, exam, or learn smart assignment will be hosted online on the publisher's server – McGraw Hill Connect, however, access to assessments and learn smart assignments are conducted through links in Blackboard. Only access the quizzes, exams, and learn smart assignments through the links provided in each learning module. Feedback on your assessments can be reviewed after each quiz or exam or exam is completed. Each learn smart assignment provides feedback as you proceed through the material. Practice assessments are also available in Connect for each Chapter. Ongoing feedback ins important for you to assess your progress in the course and to determine if your approach to learning the material is effective.

- Case Study: Assignments will be provided in the Brightspace/D2L learning modules. Download and save the word document and edit your response. Your completed document will be uploaded in the assignment link. A case Study rubric is provided in the rubric menu link. Use it to guide you in the completion of your document. Instructors feedback will be provided individually on your submission through your My Grades tool.
- **Discussions:** are conducted on Brightspace/D2L through the Discussions tool. The forum will help foster connections with your fellow classmates and will contribute to the sense of community (online). The discussion post will also supplement your mastery of the content and strength your communication and writing skills. A discussions rubric is provided in the Rubric menu link. Use it to guide you in your posts and replies. Instructor feedback will be provided individually on each discussion through your My Grades tool.

Classroom Behavior: Students are expected to conduct themselves as mature adults observing all college rules and classroom etiquette. Disruptive behavior will not be tolerated in the classroom. As a student active in the learning community of this course, it is your responsibility to be

respectful of the learning atmosphere in your classroom. To show respect of your fellow students and instructor, you will turn off you phone and other electronic devices and will not use these devices in the classroom unless you receive permission from the instructor. Use of recording devices, including camera phones and tape recorders, is prohibited in classrooms, laboratories, faculty offices, and other locations where instruction, tutoring, or testing occurs. Students with disabilities who need to use a recording device as reasonable accommodation should contact the Office for Students with Disabilities for information regarding reasonable accommodation.

Plagiarism: The practice of taking someone else's work or ideas and passing them off as one's own. Plagiarism is a very serious offense. Plagiarism includes paraphrasing someone else's words without giving proper citation, coping directly from a website and pasting it into your paper, using someone else's words without quotation marks. Any assignment containing any plagiarized material will receive a **grade of zero** and the student will be referred to the Office of Student Conduct for appropriate discipline action. In this course you may not use AI for any assignment in any way, shape, or form. Use of AI will be treated as plagiarism. **Use of Artificial Intelligence** (AI): Any assignment containing material generated by Artificial Intelligence (AI) will receive a **grade of zero** and the student will be referred to the Office of Student Conduct for appropriate disciplinary action.

Chain of Command: Students will follow the chain of command (immediate faculty member, director, department chair dean). Failure to do so will prolong any time limits that have been in place.

Required Study Time: Outside study, apart from regular classroom work, is required to successfully complete the required course assignments. The amount of time will vary according to the individual student's abilities. Students are responsible for reading any study materials issued by their instructors.

Behavioral Responsibilities of Students is a critical aspect of the medical assisting program. Professional behavior is mandated for all students while in class of clinicals. Unprofessional behavior or conduct will NOT be tolerated in this program. Infractions of the policy of College of the Mainland Medical Assisting Program will lead to suspension from class/clinical and/or dismissal from the program. Instructors will document any and all unprofessional behavior/conduct on a College of the Mainland Instructor's warning form.

Professionalism: Success in one's career is almost as dependent on professional behavior as on one's academic knowledge and abilities. Therefore, students are expected to exhibit professional

behavior in the classroom as well as all activities with this course. Professional behavior includes:

- Attends class is punctual- The student attends every class period, arrives on time for class activities or informs the instructor in a timely manner of unavoidable situations that cause the student to be late or miss class.
- **Dependable** the student meets assignment deadlines and follows through to completion of responsibilities.
- Effective interpersonal and team skills- The student relates well to people, shows respect to others, deals tactfully and effectively with others, influences as opposed to directs, provides constructive critics without altering others, negotiates or mediates when appropriate, exhibits openness to new ideas, and demonstrates a positive attitude.
- **Effective communication skills** The student listens, speaks using correct grammar and without excess fillers. Example: Umm, you know, and like.
- **Ethical Conduct-** The student maintains honesty, integrity, and confidentiality of patient provider, fellow student, and college information.

:The minimum passing score for each performance objective is 90%. Skills checklists will be given at each lab session. It is the student's responsibility to produce the master skills sheet upon final check off.

Performance Objectives:

In a skills laboratory, a simulation of a job-like environment, the student will demonstrate the correct procedure for the following without referring to resource materials. To perform these activities, the student will need a person to function in the role of a patient. The student is expected to perform each procedure with 100% proficiency. In efficient, safe, ethical, and legal manner the student will:

Upon Completion of the MDCA 1448 Pharmacology course the student is expected to perform the following tasks with 100% proficiency according to the checklists. Minimum passing score of 90% for each task.

Content/Competencies

- 1. Administer an oral medication.
- 2. Administer an ophthalmic medication.
- 3. Administer and optic medication.
- 4. Administer a nasal medication.
- 5. Administer a rectal medication.
- 6. Administer a topical/transdermal.
- 7. Administer medication (vapor or gas) by inhalation.
- 8. Administer mediation from a vial.
- 9. Administer medication from an ampule.
- 10. Demonstrate diluting powder medication in single dose vial.
- 11. Administer and demonstrate mixing and diluting of medication.

- 12. Administer medication by subcutaneous injection.
- 13. Administer medication by intramuscular injection.
- 14. Administer medication by intradermal injection.
- 15. Administer, interpret, and record results of the basic types of skin test.
- 16. Demonstrate methods for patient teaching as related to medication administration.
- 17. Demonstrate method for refills/charting.
- 18. Create and maintain mediation and immunization records.
- 19. Recognized and response to emergencies relative to patient care and their response to treatments.
- 20. Maintain confidentiality.
- 21. Practice within the scope of education training and personal capabilities.

Learning Goals:

The learning goals for this course include:

- Weights and measures.
- Drug calculations.
- Calculating dosages.
- Rules for conversion.
- Calculating pediatric dosages.
- Drug names.
- Regulations and standards.
- References.
- Legal classifications of drugs.
- Drug abuse.
- General classes of drugs.
- Routes and methods of drug administration.
- Frequently administered drugs.
- Side effects of medications.
- Drug interactions.
- Drug use during pregnancy.
- Reading and writing a prescription.
- Abbreviations used in pharmacology.
- Administration procedures.
- Equipment used for medication administration.
- Sites for intramuscular injection intradermal injection.
- Tuberculin skin test.
- Intravenous therapy.
- Immunizations
- Reconstituting powered medication for administration.
- Charting medications.

^{*}A skill competency checklist is provided to each student at the beginning of the program. The instructor upon completion to the skill must sign it. All skills checklists become a part of the student's permanent file.

Clinical Learning Experience Requirements:

In order to be eligible for the clinical learning experience, a student must successfully complete the course(s) with a minimum grade of 75% in the theory component and 90% in the lab skills component. The experience is in a hospital lab or a private clinical lab, as arranged by the MDCA Program Director.

<u>Student Dress for Laboratory:</u> A physical appearance communicates a strong impression about an individual. Hair combed neatly, fingernails cleaned, pressed clean uniform and an overall professional appearance conveys a commitment to cleanliness and infection control.

- 1. For safety purposes, students are expected to wear scrubs to laboratory classes. (MANDATORY).
- 2. Closed toe shoes (no sandals or canvas shoes) that are soft-soled, such as white leather-type tennis or similar shoes are strongly recommended.
- 3. Student's hair must be cleaned, neat, and conservative. The hair must be drawn back if longer than shoulder length or handing in the face.
- 4. Fingernails must be kept clean and reasonable length of 1/8" above the fingertips.
- 5. Please limit jewelry to wedding rings and a wristwatch. No dangling chains, necklaces, or earrings are allowed. Conservative earlobe earrings (no more than one pair) 5mm in diameter are permitted.

Laboratory Safety:

Each student is responsible for his/her own work and for the cleaning of his/her workstation.

The following must be observed:

- 1. Eating or drinking will not be permitted in the laboratory. (That includes no gum chewing). Avoid putting objects in your mouth.
- 2. Do not attempt to adjust contact lenses in the lab.
- 3. Wash your hand before leaving the laboratory for any reason. Proper hand washing is essential. Hand washing is the single most important means of preventing the spread of infection. Hands must be washed before and after each patient contacts.
- 4. Disinfect work area thoroughly after each laboratory session.
- 5. Cover spills with paper towels, soak thoroughly with disinfectant and with 15 minutes before cleaning it up.
- 6. All accidents are to be reported immediately to the instructor.
- 7. OSHA guidelines for occupational exposure to blood borne pathogen standards must be observed.

Success Tips for Students:

• Read all assignments and understand requirements for completing assignment prior to coming to class.

- Three Prior to Me: The MA faculty encourages students to problem-solve, work as a team as well as utilize available resources. In order to develop these skills, we will employ the "Three Prior to Me" process. This means that before you contact the instructor with a course-related question, you must have attempted to find the information in three other places. For instance, if you are unsure about the meaning of a term used in the course, you would attempt to locate this information in three places prior to asking the instructor. Hence, you might do a Google search for the term, ask a classmate, and refer to your textbook. Instructors will question you regarding what research methods you utilized to locate information on your own. This process is not meant to be a barrier to you, but instead to provide the following benefits:
 - o Preparation for the workforce.
 - o Increased research skills.
 - o Instructors will have more time to provide feedback and interact with students.