

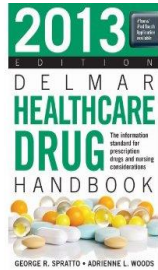
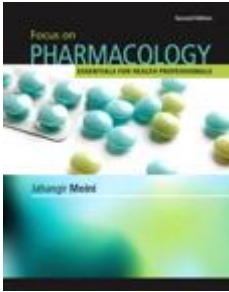


Pharmacology in the Medical Office MAST 1030 COURSE SYLLABUS Spring Semester 2015

Semester: Spring 2015
Course Title: Pharmacology in the Medical Office
Course Number: MAST 1030
Credit Hours/ Minutes: 4/3000 minutes
Class Location: Building 8, Room 8166
Class Meets: 11:10-12:00 M-R
CRN: 40208

Instructor: Stephannie Waters, AAS, CMA (AAMA)
Office Hours: M-Th 2:30-5:30
Office Location: Room 731, Gillis Building
Email Address: swaters@southeasterntech.edu
Phone: 912-538-3195
Fax Number: 912-538-3106
Tutoring Hours: By appointment only

REQUIRED TEXT: Focus on Pharmacology Moini (Pearson) ISBN# 9780133059281
Dosage Calculations Pickar/Abernathy (Cengage) (This can only be purchased in the STC Bookstore)
Drug Handbook ISBN# 9781133280309



REQUIRED SUPPLIES & SOFTWARE: 3 ring notebook, paper, ink pens, No. 2 pencils, highlighters, and any other supplies deemed necessary throughout the semester

COURSE DESCRIPTION:

Introduces medication therapy with emphasis on safety; classification of medications; their actions; side effects; medication and food interactions and adverse reactions. Also introduces basic methods of arithmetic used in the administration of medications. Topics include: introductory pharmacology; dosage calculation; sources and forms of medications; medication classification; and medication effects on the body systems.

MAJOR COURSE COMPETENCIES:

1. Introduction to Pharmacology.
2. Dosage Calculation
3. Sources and Forms of Medications
4. Classifications of Medications
5. Medication Effects on the Body Systems

PREREQUISITE(S): ENGL 1010, MATH 1012, PSYC 1010, ALHS 1011, ALHS 1090, COMP 1000, MAST 1080, MAST 1100, MAST 1120

COREQUISITE(S): MAST 1030, MAST 1110

COURSE OUTLINE:

Introductory Pharmacology

1. Discuss the history and evolution of pharmacology from primitive times to present.
2. Demonstrate the use of common reference sources in pharmacology (ie. Drug guides, internet sources, etc.)

Dosage Calculation

1. Demonstrate knowledge of basic math computations.
2. Apply mathematical computations to solve equations.
3. Identify measurement systems.
4. Define basic units of measurement in metric and household systems.
5. Establish metric equivalents that are most frequently used in the medical field.
6. Compute conversions among measurement systems.
7. Identify both abbreviations and symbols used in calculating medication dosages.
8. Calculate medication dosages using proportional method.
9. Calculate medication dosages using a formulaic method.
10. Calculate pediatric medication dosages by various rules.

Sources and Forms of Medications

1. Determine the main sources of medications.
2. Interpret the importance of the Federal Food, Drug, and Cosmetic Act/Controlled Substance Act of 1970.
3. Recognize reasons for standardization of medications.
4. Examine factors that determine the dosage of patient's medication.
5. Describe the forms in which medications are prepared.
6. Establish classified action of medications.

Classification of Medications

1. Classify reasons for administering medications by inhalations.
2. Distinguish medications that can be administered by local application.
3. Examine methods used in radiation diagnostic and therapeutic applications.
4. Assess the safety precautions to be observed when caring for a patient receiving radiation.
5. Examine the importance of government regulations with regard to radioactive substances.
6. Correlate the factors that may determine the effectiveness of an antiseptic and/or disinfectant.
7. Classify antimicrobial medications as broad-spectrum, narrow-spectrum, and/or extended-spectrum.
8. Relate adverse effects that may occur with administration of an antimicrobial medication.
9. Classify the actions, uses, contraindications, adverse reactions, dosages, routes, and implications of selected antimicrobial medications.
10. Differentiate between active and passive immunization processes.
11. Characterize the general recommendations for immunizations.
12. Characterize the classification of antineoplastic agents.
13. Recognize situations when chemotherapy is the treatment of choice for cancer.
14. Examine guidelines for handling antineoplastic agents.
15. Characterize the classification of psychotropic agents.
16. Recognize foods/beverages that should be avoided when taking monoamine oxidase inhibitors.
17. Examine selected nutritional supplements, vitamins, minerals and herbal preparations.
18. Classify the actions, uses, contraindications, adverse reactions, dosages, routes, and implications of selected anti-anxiety, antipsychotic, and antimanic drugs.
19. Classify the actions, uses, contraindications, adverse reactions, dosages, routes, and implications of selected nutritional supplements, vitamins, minerals and herbal preparations.

Medication Effects on the Body Systems

1. Describe the relationship between the anatomy and physiology of all body systems and medications used for treatment in each.
2. Classify the action, initial dose, the usual maintenance dose, and adverse reactions for each medication as applies to each body system.
3. Recognize the side effects of radiation therapy.
4. Articulate examples of adverse reactions associated with antineoplastic agents.
5. Demonstrate patient education as applies to each body system and the medications used for each body system.

GENERAL EDUCATION CORE COMPETENCIES: STC has identified the following general education core competencies that graduates will attain:

1. The ability to utilize standard written English.
2. The ability to solve practical mathematical problems.
3. The ability to read, analyze, and interpret information.

STUDENT REQUIREMENTS: All students are responsible for policies and procedures in the *STC-E Catalog and Handbook*. All students are expected to demonstrate preparation for class by having assigned text readings completed prior to class time. All tests, assignments, and learning activities are to be completed according to the lesson plans/calendar per the instructor's directions. The student is completely responsible for all assignments given and for material missed when absent. The lowest exam grades are NOT dropped.

ASSIGNMENTS: This lesson plan is subject to change at the instructor's discretion. Late assignments are assessed 10 points each day. Three days past the due date, the assignments are not accepted, a grade of zero is assigned. It is the student's responsibility to make sure all assignments are completed and submitted by these due dates. Points will be deducted for failure to follow directions. **Proper heading must be included on all materials handed in.** This includes first name, last name, date, course, and assignment name. Failure to include this information will result in a five point deduction.

Students must pass a drug calculation exam with 100% accuracy to complete the course. Students will be given three opportunities to achieve 100% on the exam. Students that do not pass the drug calculation exam with 100% accuracy will receive a grade of “F” for the course.

On pages 665-667 in FOCUS ON PHARMACOLOGY text book, you will see the most commonly prescribed drugs in the United States. Drug sheets on each drug are to be turned in on the designated date unless otherwise informed by your instructor. **If you do not turn your drug sheets in on the designated date at the beginning of class, you will receive a “0”.**

A final unit test average of 75 or above is required to sit for the final exam. Grades of 74.9 will not be rounded up. If you have below a 75 average, you will receive a “0” for your final test grade.

STC ATTENDANCE POLICY: It is essential that educational programs maintain requirements and standards necessary for successful employment of its graduates in business and industry. In view of the intensive nature of the educational programs, it is necessary for every student to be present and on time every day for all classes.

Attendance is counted from the first scheduled class meeting of each semester. To receive credit for a course a student must attend at least 90% of the scheduled instructional time. All work missed due to tardiness or absences must be made up at the convenience of the instructor. Any student attending less than the required scheduled instructional time as noted on each syllabus will receive a "W" for the course if removed from the course on or before midterm. After the semester midterm, any student who has maintained a passing grade within a course will receive a 'WP' for the course when attending less than the required scheduled instructional time as stated on each course syllabus. If, however, the student has not maintained a passing grade, he or she will receive a 'WF' for the course. Tardy means arriving after the scheduled time for instruction to begin. Early departure means leaving before the end of the scheduled time. Three (3) tardies or early departures equal one (1) absence for the course involved.

TRADITIONAL ATTENDANCE ADDENDUM: For this class, which meets 4 days a week for 15 weeks, the maximum number of days a student may miss is 6 days during the semester.

SPECIFIC ABSENCES: Provisions for Instructional Time missed because of documented absences due to jury duty, military duty, court duty, or required job training will be made at the discretion of the instructor.

SPECIAL NEEDS: Students with documented special needs may be provided with an individualized Instructional Plan with specifications for scheduled instructional time. It is the student's responsibility to inform the Special Needs Specialist as students and instructors are required to have documented evidence prior to receiving or allowing special accommodations. See the STC Catalog and Student Handbook, Student Affairs section for further information regarding special needs.

SPECIAL NEEDS ADDENDUM: Students with disabilities who believe that they may need accommodations in this class based on the impact of a disability are encouraged to contact Jan Brantley, Building 1 Room 1208 Swainsboro Campus, 478-289-2274, or Helen Thomas, Room 108 Vidalia Campus, 912-538-3126, to coordinate reasonable accommodations.

MAKEUP GUIDELINES: If an exam is missed, the student will be allowed to take make-up exams during one day at the end of the semester (date to be scheduled by the instructor). There will be NO exceptions to this policy.

If a skills check—off is missed, the student is completely responsible for arranging make-up lab time at the instructor's convenience. Lowest exam grades are not dropped. Students are responsible for keeping up with their grades. Do not ask instructor for grades during the semester.

ACADEMIC DISHONESTY POLICY: The STC Academic Dishonesty Policy states *All forms of academic dishonesty, including but not limited to cheating on tests, plagiarism, collusion, and falsification of information, will call for discipline.* The policy can also be found in the *STC Catalog and Student Handbook.*

Procedure for Academic Misconduct

The procedure for dealing with academic misconduct and dishonesty is as follows:

--First Offense--

Student will be assigned a grade of "0" for the test or assignment. Instructor keeps a record in course/program files and notes as first offense. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus. The Registrar will input the incident into Banner for tracking purposes.

--Second Offense--

Student is given a grade of "WF" for the course in which offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Registrar will input the incident into Banner for tracking purposes.

--Third Offense--

Student is given a grade of "WF" for the course in which the offense occurs. The instructor will notify the student's program advisor, academic dean, and the Registrar at the student's home campus indicating a "WF" has been issued as a result of second offense. The Vice President for Student Affairs, or designee, will notify the student of suspension from college for a specified period of time. The Registrar will input the incident into Banner for tracking purposes.

STATEMENT OF NON-DISCRIMINATION: Southeastern Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, disabled veteran, veteran of Vietnam Era or citizenship status, (except in those special circumstances permitted or mandated by law). This school is in compliance with Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color, or national origin; with the provisions of Title IX of the Educational Amendments of 1972, which prohibits discrimination on the basis of gender; with the provisions of Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of handicap; and with the American with Disabilities Act (ADA).

ACCESS TO TECHNOLOGY: Students can now access [Blackboard](#), [Remote Lab Access](#), [Student Email](#), [Library Databases \(Galileo\)](#), and [BannerWeb](#) via the mySTC portal or by clicking the Current Students link on the STC website at www.southeasterntech.edu.

GRADING POLICY

Tests	70%
Drug Sheets	5%
Final Exam	25%
Total	100%

GRADING SCALE

- A: 90-100
- B: 80-89
- C: 70-79
- D: 60-69
- F: 0-59

TCSG GUARANTEE/WARRANTY

STATEMENT: *The Technical College System of Georgia guarantees employers that graduates of State Technical Colleges shall possess skills and knowledge as prescribed by State Curriculum Standards. Should any graduate employee within two years of graduation be deemed lacking in said skills, that student shall be retrained in any State Technical College at no charge for instructional costs to either the student or the employer.*

Critical Thinking Core Curriculum for Medical Assistants (MAERB) 2008 Curriculum Plan

Foundations for Clinical Practice

I. C Cognitive (Knowledge Base)	I. P Psychomotor (Skills)	I. A Affective (Behavior)
<p>I. Anatomy & Physiology</p> <ol style="list-style-type: none"> 1. Identify body systems. 2. List major organs in each body system. 3. Describe the normal function of each body system. 4. Identify common pathology related to each body system. 5. Discuss implications for disease and disability when homeostasis is not maintained. 6. Describe implications for treatment related to pathology. 7. Identify the classifications of medications, including desired effects, side effects and adverse reactions. 8. Describe the relationship between anatomy and physiology of all body systems and medications 	<p>I. Anatomy & Physiology</p> <ol style="list-style-type: none"> 1. Select proper sites for administering parenteral medication. 	<p>I. Anatomy & Physiology</p> <ol style="list-style-type: none"> 1. Apply critical thinking skills in performing patient assessment and care. 2. Use language/verbal skills that enable patients' understanding. 3. Demonstrate respect for diversity in approaching families.

used for treatment in each.		
II.C Cognitive (Knowledge Base)	II.P Psychomotor (Skills)	II.A Affective (Behavior)
II. Applied Mathematics 1. Demonstrate knowledge of basic math computations. 2. Apply mathematical computation to solve equations. 3. Identify measurement systems. 4. Define basic units of measurement in metric, apothecary, and household systems. 5. Convert among measurement systems. 6. Identify both abbreviations and symbols used in calculating medication dosages. 7. Analyze charts, graphs and/or tables in the interpretation of healthcare results.	II. Applied Mathematics 1. Prepare proper dosages of medication for administration.	II. Applied Mathematics 1. Verify ordered doses/dosages prior to administration.
III.C Cognitive (Knowledge Base)	III.P Psychomotor (Skills)	III.A Affective (Behavior)
III. Applied Microbiology/ Infection Control	III. Applied Microbiology/Infection Control	III. Applied Microbiology/ Infection Control

Safety and Emergency Practices

XI.C Cognitive (Knowledge Base)	XI. P Psychomotor (Skills)	XI. A Affective (Behavior)
XI. Protective Practices 1. Describe personal protective equipment. 2. Identify safety techniques that can be used to prevent accidents and maintain a safe work environment.	V. Protective Practices 1. Evaluate the work environment to identify safe vs. unsafe working conditions. 2. Use proper body mechanics.	IX. Protective Practices

**MAST 1030 PHARMACOLOGY IN THE MEDICAL OFFICE
SPRING SEMESTER 2016 LESSON PLAN**

Date	Chap / Less	Content	Assignments & Tests Due	Comp Area
01/11		First day of class. Introduction to the Course, Syllabi, Outline, Rules, Regulations Coverage; Completion of forms Review Drug Sheet completion	Read Chapter 1	
01/12	Ch. 1 Ch. 2	Introduction to Principles of Pharmacology Law and Ethics of Medication Administration	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge"	1 A, C
01/13	Ch. 3	Terminology, Abbreviations, and Dispensing Prescriptions	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge"	1 A, C
01/14	Ch. 4	Administration of Medications	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge"	1, 3 A, C
01/18		HOLIDAY		
01/19	Ch. 4	Administration of Medications	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" STUDY FOR TEST 1 CHAPTERS 1-4	1, 3 A, C
01/20		TEST 1 CHAPTERS 1-4	Complete the following exercises in Chapters 1-4 of the Dosage Calculations book. Practice Problems Ch. 1 pgs 60-62 Odds Practice Problems Ch. 2 pgs. 78-79 Odds Self Evaluation pgs. 80-81 Odds (1-43) Practice Problems Ch. 3 pgs. 94-96 Odds Practice Problems Ch. 4 pgs. 110-111 Odds	

01/21	Dosage Calc	MATH REVIEW	Do odd numbered exercises for Chapters 1-4 in Dosage Calculations Book.	2 B
01/25		Review Conversions	Work on problems in Dosage Calculation Book.	
01/26		MATH REVIEW TEST BE PREPARED!!!	Read Chapter 6	2 B
01/27	Ch. 6	Equipment Used in Dosage Measurement	Read Chapter 7	2 B
01/28	Ch. 7	Interpreting Drug Orders	Read Chapter 8	2 B
02/01	Ch. 8	Oral Dosages of Drugs		2 B
02/02	Ch. 8	Chapter 8 Continued	Read Chapter 10	2 B
02/03	Ch. 10	Oral Dosages of Drugs	DRUG SHEETS 1-25 ARE DUE	2 B
02/04	Ch. 10	Chapter 10 Continued	Read Chapter 11	2 B
02/08	Ch. 11	Parenteral Dosages of Drugs		2 B
02/09	Ch. 11	Chapter 11 Continued	Read Chapter 12	2 B
02/10	Ch. 12	Reconstitution of Solutions		2 B
02/11	Ch. 12	Ch. 12 Continued	Read Chapter 13	2 B
02/15	Ch. 13	Pediatric and Adult Dosages Based on Body Weight		2 B
02/16	Ch. 13	Ch. 13 Continued	Prepare for Drug Calculations Exam #1	2 B
02/17		Drug Calculations Exam #1		2 B
02/18		Review Exam #1	Prepare for Drug Calculations Exam #2	2 B
02/22		Drug Calculations Exam #2		2 B
02/23		Drug Calculations Exam #3	Read Chapter 9 in the Focus on Pharmacology Book	2 B
02/24	Ch. 9	Nutritional Aspects of Pharmacology and Herbal Substances	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge"	4, 5 C
02/25	Ch. 9	Chapter 9 Continued	Read Chapter 10 DRUG SHEETS 26-50 ARE DUE	4, 5 C
02/29	Ch. 10	Toxicology	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" STUDY FOR TEST 2 CHAPTERS 9-11	4, 5 C
03/01		TEST 2 CHAPTERS 9-11	Read Chapter 12	4, 5 C
03/02	Ch. 12	Antibacterial and Antiviral Agents	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply	4, 5

			Your Knowledge”	C
03/03	Ch. 12	Chapter 12 Continued MID-TERM	Read Chapter 13	4, 5 C
03/07	Ch. 13	Antifungal, Antimalarial, and Antiprotozoal Agents	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" STUDY FOR TEST 3 CHAPTERS 12 & 13	4, 5 C
03/08		TEST 3 CHAPTERS 12 & 13	Read Chapter 14	4, 5 C
03/09	Ch. 14	Vaccines & Immunoglobulins	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" Read Chapter 15	4, 5 C
03/10	Ch. 15	Analgesics, Antipyretics, and Anti-Inflammatory Drugs MULTICULTURAL DAY	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" Read Chapter 16	4, 5 C
03/14	Ch. 16	Antineoplastic Drugs	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" STUDY FOR TEST 4 CHAPTERS 14-16	4, 5 C
03/15		TEST 4 CHAPTERS 14-16	Read Chapter 17	4, 5 C
03/16	Ch. 17	Drugs Used to Treat Central Nervous System Conditions	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge"	4, 5 C
03/17	Ch. 17	Ch. 17 Continued	Read Chapter 18	4, 5 C
03/21	Ch. 18	Drugs Used to Treat Autonomic Nervous System Conditions	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" Read Chapter 19	4, 5 C
03/22	Ch. 19	Anesthetic Agents	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" STUDY FOR TEST 5 CHAPTERS 17-19	4, 5 C
03/23		TEST 5 CHAPTERS 17-19	Read Chapter 21	4, 5 C
03/24	Ch. 21	Drugs Used to Treat Cardiovascular Conditions	DRUG SHEETS 51-75 ARE DUE	4, 5 C
03/28-03/31		SPRING HOLIDAYS		
04/04	Ch. 22	Drugs Used to Treat Vascular Conditions	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge"	4, 5 C
04/05	Ch. 22	Chapter 22 Continued	Read Chapter 23	4, 5 C
04/06	Ch. 23	Anticoagulants	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" STUDY FOR TEST 6 CHAPTERS 21-23	4, 5 C
04/07		TEST 6 CHAPTERS 21-23	Read Chapter 24	
04/11	Ch. 24	Drugs Used to Treat Fluid and Electrolyte Imbalances	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply	4, 5 C

			Your Knowledge" Read Chapter 27	
04/12	Ch. 27	Drugs Used to Treat Gastrointestinal Conditions	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" STUDY FOR TEST 7 CHAPTERS 24 & 27	4, 5 C
04/13		TEST 7 CHAPTERS 24 & 27	Read Chapter 25	4, 5 C
04/14		SPRING ACTIVITY DAY		
04/18	Ch. 25	Drugs Used to Treat Endocrine Conditions	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" Read Chapter 26	4, 5 C
04/19	Ch. 26	Drugs Used to Treat Reproductive Conditions	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" STUDY FOR TEST 8 CHAPTERS 25 & 26	4, 5 C
04/20		TEST 8 CHAPTERS 25 & 26	Read Chapter 28	4, 5 C
04/21	Ch. 28	Drugs Used to Treat Respiratory Conditions	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" Read Chapter 29	4, 5 C
04/25	Ch. 29	Drugs Used to Treat Musculoskeletal Disorders	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" STUDY FOR TEST 9 CHAPTERS 28 & 29 DRUG SHEETS 76-100 ARE DUE	4, 5 C
04/26		TEST 9 CHAPTERS 28 & 29	Read Chapter 20	4, 5 C
04/27	Ch. 20	Drugs Used to Treat Skin Conditions	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" Read Chapter 30	4, 5 C
04/28	Ch. 30	Drugs Used to Treat Eye Conditions	Read Chapter. Highlight objectives. Know key terms. Complete each chapter's "Apply Your Knowledge" STUDY FOR TEST 10 CHAPTERS 20 & 30	4, 5 C
05/02		TEST 10 CHAPTERS 20 & 30	STUDY FOR FINALS!!!!	4, 5 C
05/03-05/04		FINAL		

Competency Areas:

1. Introduction to Pharmacology
2. Drug Calculations
3. Sources and Forms of Medications
4. Classifications of Medications
5. Medication Effects on Body Systems

****General Core Educational Competencies**

- A. The ability to utilize standard written English.
- B. The ability to solve practical mathematical problems.
- C. The ability to read, analyze, and interpret information.