

**COURSE SYLLABUS
WINTER QUARTER
MAS 103 Pharmacology**

INSTRUCTOR: LaKisha R. Robinson, BS, CMA (AAMA)

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OFFICE PHONE: 478.274.7885

OFFICE HOURS: M, T, W 3:30pm- 4:30pm

OFFICE LOCATION: LL Hall 224J

COURSE LENGTH AND CREDIT: 5 clock hours, 5 credit hours

CLASS TIMES AND LOCATION: T, W, R 10:00am- 11:40am, Room 202

COURSE DATES: January 11, 2010- March 23, 2010

PREREQUISITE: MAS 106, BUS 101, MAS 112

METHOD OF INSTRUCTION: This class will be taught using a variety of methods of instruction, including lecture, audio/visual aids, practical mathematical and pharmaceutical applications, and other activities deemed acceptable by the instructor. This course introduces the student to basic pharmacology and the basic calculations of medication administration.

HARDWARE – SOFTWARE REQUIREMENTS:

In order to fulfill the requirements for this course you will need the following:

- Either a Macintosh or Windows-based computer (Windows 98 or higher, Mac OS 10 or higher, 64 MB of RAM or greater, sound card, and speakers)
- Internet access (Microsoft Internet Explorer (7 or higher) or Moxilla Firefox (2 or higher))
- HGTC e-mail account (Students must use this assigned account.)
- **Microsoft Word Office 2007**

HGTC STUDENT E-MAIL ACCOUNT:

Students at Heart of Georgia Technical College are assigned an e-mail account. To access your account, go to HGTC's webpage, www.heartofgatech.edu and click on the *Heartmail* link under the *Current Student* tab. Students who have questions or issues with their e-mail account should contact their instructor or contact the Instructional Technology Specialist at (478) 274-7835.

E-MAIL RESPONSE TIME

Unless there are extenuating circumstances, your instructor will respond to emails within 24 hours, Monday through Thursday.

ASSISTANCE—TECHNOLOGY QUESTIONS:

If you experience technological issues with this course and need assistance, contact the Instructional Technology Specialist, dwilliams@heartofgatech.edu, (478) 274-7835

REQUIRED TEXTBOOK(S): Woodrow, Ruth. 2007. *Essentials of pharmacology for health occupations*. 5th Edition. Thomson Delmar Learning.

Woodrow, Ruth. 2007. *Essentials of pharmacology for health occupations workbook*. 5th Edition. Thomson Delmar Learning.

RECOMMENDED SUPPLIES: Physician's Desk Reference
Taber's Cyclopedic Medical Dictionary

COURSE DESCRIPTION: Introduces drug therapy with emphasis on safety, classification of drugs, their actions, side effects, and/ or adverse reactions. Also introduces the basic concept of arithmetic used in the administration of drugs. Topics include: introduction to pharmacology; calculation of dosages; sources and forms of drugs; drug classification; and drug effects on the body systems.

MAJOR COURSE COMPETENCIES/LEARNING OUTCOMES:

- ✓ Introduction to Pharmacology
- ✓ Calculation of Dosages
- ✓ Sources and Forms of Drugs
- ✓ Drug Classification
- ✓ Drug Effects on the Body Systems

COURSE OBJECTIVES: Upon completion of this course, student will:

- ✓ Identify evolution of pharmacology from primitive times to present
- ✓ Calculate dosages using proportional method
- ✓ Name metric equivalents that are most frequently used in the medical field
- ✓ Calculate dosages using a formulaic method
- ✓ Calculate pediatric dosages by various rules
- ✓ List four main sources of drugs
- ✓ State the importance of the Federal Food, Drug, and Cosmetic Act/ Controlled Substance Act of 1970
- ✓ List two reasons for standardization of drugs
- ✓ List factors that determine the dosage of patient's medications
- ✓ List forms in which drugs are prepared
- ✓ Explain classified action of drugs
- ✓ State three reasons for administering by inhalation
- ✓ List drugs that can be administered by local application
- ✓ Describe methods used in radiation therapy
- ✓ State the safety precautions to be observed when caring for a patient who is receiving radiation
- ✓ Explain the importance of government regulations with regard to radioactive substances
- ✓ List the side effects of radiation therapy
- ✓ List four factors that may determine the effectiveness of an antiseptic and/ or disinfectant
- ✓ Classify antibiotics as broad- spectrum, narrow- spectrum, and/ or extended spectrum
- ✓ Describe three adverse effects that may occur with administration of antibiotics
- ✓ State the actions, uses, contraindications, adverse reactions, dosages, routes, and implications of selected antibiotics
- ✓ Differentiate between active and passive immunity
- ✓ State the general recommendations of immunizations
- ✓ State the actions, uses, contraindications, adverse reactions, dosages, routes, and implications for patient care of selected antifungal and antiviral agents
- ✓ State situations when chemotherapy is the treatment of choice for cancer
- ✓ Describe examples of adverse reactions associated with antineoplastic agents
- ✓ Describe guidelines for handling antineoplastic agents
- ✓ Describe the classification of antineoplastic agents
- ✓ Describe four classifications of psychotropic agents
- ✓ List foods/ beverages that should be avoided when taking monoamine oxidase inhibitors
- ✓ State the actions, uses, contraindications, adverse reactions, dosages, routes, and implications of selected anti-anxiety, antipsychotic, and antimanic drugs
- ✓ Describe ways that drugs may affect each body system
- ✓ State the action, initial dose, the usual maintenance dose, and adverse reactions for each medication as applies to each body system
- ✓ Describe patient education as applies to each body system and the medications used for each body system

COURSE OUTLINE:

Week One

Chapter 1 Consumer Safety and Drug Regulations
Chapter 2 Drug Names and References
Chapter 3 Sources and Bodily Effects of Drugs

Week Two

Chapter 4 Medication Preparations
Chapter 5 Abbreviations and Systems of Measurement
Chapter 6 Safe Drug Preparation

Week Three

Chapter 6 Safe Drug Preparation

Week Four	Chapter 7 Responsibilities and Principles of Drug Administration Chapter 9 Administration by the Parental Route Chapter 6 Safe Drug Preparation
Week Five	Chapter 11 Vitamins, Minerals, and Herbs Chapter 12 Skin Medications Chapter 13 Autonomic Nervous System Drugs
Week Six	Chapter 23 Endocrine System Drugs Chapter 25 Cardiovascular Drugs
Week Seven	Chapter 26 Respiratory System Drugs and Antihistamines Chapter 15 Urinary System Drugs
Week Eight	Chapter 16 Gastrointestinal Drugs Chapter 24 Reproductive System Drugs
Week Nine	Chapter 14 Antineoplastic Drugs Chapter 17 Anti- Infective Drugs Chapter 22 Anticonvulsants, Antiparkinsonian Drugs and Agents for Alzheimer's Chapter 6 Safe Drug Preparation

EVALUATION:

A student's final course grade will be derived using the following percentages.

ACTIVITIES	%	GRADING SCALE
Exams	60%	A (90-100)
Assignments	5%	B (80-89)
Research	10%	C (70-79)
Final Exam	25%	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.

Students must maintain a minimum grade of "C" in this course if it is a prerequisite for other classes.

REQUIREMENTS:

You are expected to follow the calendar and read the Chapters ahead of class lecture.

To complete MAS 103 and continue in the program, the student must:

1. Achieve a final grade of "C" or better
2. Complete and turn in all assignments
3. Complete all unit exams
4. Complete the Comprehensive Final Exam
5. Complete an investigative research project via electronic or other library resources. *

***Research Project:** Using various sources, create a reference card for a drug from each of the chapters that have been discussed from the book. (See Course Outline). I know that there are many drugs mentioned in the chapters, but I would like for you to aim at finding other drugs from other sources. Five point deduction for the use of drugs that we have already mentioned/ studied from the book. On the drug card, information included should be drug name (all names), various available dosages, forms, interactions, contraindications, patient teaching, routes of administration, side effects, pregnancy category, action, use, adverse effects, and you should also include a picture of the drug. The picture can be hand drawn or photocopied (must provide a reference). See Rubric for grading criteria. **Due Date Submission is Thursday, March 04, 2010. No late projects will be accepted, no drop- offs, no bringing in by a classmate will not be accepted. Email will not be accepted.**

ATTENDANCE POLICY: Your success in this course is highly dependent upon your active engagement with the material presented therein. Regular and punctual attendance is an important part of preparing a student for employment and is often a critical factor when employers review a student's record. Absences seriously disrupt a student's orderly progress in a course and significantly diminish the quality of group interaction in class. Regular and punctual attendance in all classes is the student's responsibility. Attendance is counted from the first scheduled class meeting of each quarter. Absence from class for any reason does not excuse a student from full responsibility for class work or assignments missed. The student is still responsible for preparing assignments for the next class meeting and for completing all work missed.

1. On the third absence, you will be dropped from the class in adherence to HGTC and Medical Assisting program policies. Three (3) tardies equals one (1) absence. If you are on the computers during lecture, I will mark you absent for that day.
2. In no case may cumulative absences exceed the 10% limit established by HGTC and the Medical Assisting program policy. If you miss greater than 10% of the total classes during the quarter, you will be dropped from the class in adherence to HGTC and the Medical Assisting program policies.
3. If you are late for the Final Exam, you will not be allowed in the room and you will receive a grade of "0".
4. If you are late for an exam, you will not be allowed in the room and you will receive a grade of "0".
5. During exams, cell phones are required to either be OFF/ SILENT; **NO** vibrate, it disrupts the class, any violation you will be asked to leave and receive a grade of "0" for the exam.
6. No talking, popping gum, turning of heads while exams are out. Once you begin your exam, you will not be permitted to leave the classroom. Any violation and you will receive a "0" for the exam. Please take care of personal matters before entering the classroom; restroom, phoning home to check in, expecting calls. If there is a question about the exam, please raise your hand and I will be at your desk.

APPEARANCE/ ATTIRE

It is the policy of the Allied Health Department to mandate that students going into the Allied Health field wear scrubs for their designated programs. Medical Assisting scrubs are turquoise colored and must be worn to class and health fairs Monday through Friday. If for any reason a student cannot wear his/her scrubs because of work related issues, prior approval by the instructor must be obtained, or the student will be marked absent for that day. Otherwise, the student will be in violation of the policy and will be written up according to HGTC policy. Proper foot attire must be worn with scrubs; this does not include flip-flops and bedroom shoes. We here at the Heart of Georgia Technical College are training you for the workforce and the medical field; what you would wear at work in the physician's office is what you would need to wear here in class.

This policy is not effective to those students taking Pharmacology as an elective, only Medical Assistant students must adhere.

SUBMISSION OF WORK:

This course is fast-paced and students are expected to keep up with course activities. All course assignments/tests are due by the date indicated on the course schedule/ class calendar. Students who do not submit assignments or take tests on time will receive a grade of "0" unless prior arrangements have been made with the instructor. Students will be provided specific guidelines to follow for all assignments. Failure to complete ALL of the required work will result in the student receiving a final grade of "F." Assignments cannot be emailed, must be turned in on assigned dates by the student.

The workbook that accompanies the book for this course is an excellent source for practice and testing your knowledge. I recommend the student to complete the workbook throughout the course. I will randomly review the student's workbook, unannounced, to grade the progress that the student is making by completing the workbook activities. These random reviews will be done on test days over the chapters that are being tested for that day. i.e. if we are having an exam over chapters 1, 2, and 3, then exercises for chapters 1, 2, and 3 should be completed by exam day. If I select to review the workbook, the student will receive an assignment grade, if the workbook is not completed, a grade of "0" will be given.

MAKE-UP POLICY

No assignments or in class activities can be made up. I **DO NOT** accept any late work; work is considered late when it is not in my hand(s) by the time I am done collecting from the class. In other words, you come to class late or miss a day I

will not accept the assignment. (You can bring it to me, but I **WILL NOT** grade it.) Please do not send your work by a classmate, I will not accept it. Responsibility is a key to being a success as defined in the Work Ethics section of the syllabus, so therefore, be responsible and accountable for your own.

Exams may be made up, but they must be done so within three (3) days upon the student's return to class. The student will be responsible for scheduling their make-up exam through the TRACS center. Registration can be done online at the heartofgatech.edu website. It is the student's responsibility to make sure they sign up for the make-up exam within the three allotted days. It may not be scheduled any later, if so the student will receive a grade of "0" for that exam.

MAKE-UP TEST REQUIREMENTS:

The Testing Center proctors make-up exams unless otherwise notified by the instructor. Students needing to schedule an appointment for proctoring may access HGTC's home page on its website (www.heartofgatech.edu) and click on the *Proctored Exam Schedule for Current Students* link or may click on the Current Students tab and click the *Proctored Exam Registration* link. Appointments must be made with at least 48 hours notice of the desired testing time. Failure to allow a 48-hour notification may result in the student receiving an incomplete grade or a failing grade for the exam and/or course. Students must present a photo ID at each appointment.

WORK ETHICS: Instruction in the development of good work ethics which aid in job retention and advancement is included in this course. This instruction will include weekly activities on a topic related to work ethics including attendance, character, teamwork, appearance, attitude, productivity, organization, communication, cooperation, and respect. A student is assigned a work ethics grade quarterly in addition to the academic grade for the course. Work Ethics Grade Definitions include:

- 3 Exceeds Expectations
- 2 Meets Expectations
- 1 Needs Improvement
- 0 Unacceptable

ACADEMIC DISHONESTY: HGTC assumes that all students will be truthful to each other and to members of the college community. All forms of academic dishonesty, including but not limited to, the following will call for discipline:

- ✓ knowingly helping, procuring or encouraging another person to engage in academic misconduct.
- ✓ obtaining assistance with, or answers to, examination questions from another person, with or without, that person's knowledge.
- ✓ Furnishing assistance with or answers to examination to another person.
- ✓ Possessing, using, distributing or selling unauthorized copies of any examination or computer program.
- ✓ Representing as one's own an examination taken by another person.
- ✓ Obtaining unauthorized access to the computer files of another person or agency and/or altering or destroying those files.
- ✓ Obtaining teacher edition text books, test banks, or instructional materials that are only intended to be accessed by technical college personnel.
- ✓ Falsification of information.
- ✓ Plagiarism.

Any student guilty of any form of dishonesty in academic or laboratory work will receive a grade of zero for that work. The second incidence of dishonesty will result in the student being subject to dismissal from HGTC.

TRACS (Tutoring, Referral, Assessment, Career Services Center):

The TRACS Center offers a variety of services for all students. Services are provided in Room 113, W. R. Stewart Building, or available online through the HGTC website, under tab *Career Services*.

Tutoring services are provided to assist all HGTC students in achieving their maximum level of performance in their coursework. Free tutoring is available to students enrolled in credit programs by making a request to an instructor or by contacting TRACS. Study skills and test-taking skills also are available. Interested students should contact the TRACS Center at (478) 274-7786 or (478) 274-7643.

Referrals are made for students who need services provided on the campus of HGTC as well as services available in the community. Guidance services are available and designed to help students deal with personal, social and education

concerns. Referral to professional counselors and/or community agencies will be arranged upon the request of the student. Personal counseling is voluntary and is strictly confidential. Students may be self-referred, referred by their instructors, or referred by outside agencies and organizations. For additional information contact the Career Center in Room 113 in the W. R. Stewart Building on the main campus.

Assessments are provided for the college placement assessment; third party assessments for updating professional credentials, earning certifications and licensure and work force development. For information about assessments, visit Room 306, W. R. Stewart Building, or call (478) 275-5193.

Career Services is a vital component of the Tutoring, Referral, Assessment, Career Services Center (TRACS). The Center offers a variety of services for all enrolled students, prospective students, and graduates. Students are provided with the skills and knowledge needed to make realistic career decisions in choosing a program of study. Support services to current students which will assist toward successful completion of their career goals and eventual gainful employment also are available. Heart of Georgia Technical College graduates are eligible for career services regardless of the amount of time since graduation occurred. Available services include:

- Career planning which is designed to equip students with the skills and knowledge they need to make career decisions. Counseling, testing and evaluation resources to help students match their aptitudes, interests and abilities are used to develop career and education goals.
- Career placement is committed to assisting active students and graduates in the pursuit of suitable, rewarding employment. With the combined efforts of the faculty and the administration a cooperative relationship is maintained with business and industry. Career placement services include pre-employment preparation of students and placement and follow-up activities aimed at improving the quality of technical education.
- Assistance with resume and application preparation, interviewing skills, and development of other job search skills. Job boards and computerized job searches identify jobs that are available. Job fairs and recruiters on campus are other ways to assist students and employers in finding job opportunities or qualified employees. Follow-up activities are conducted with former students and employers. Questionnaires are periodically sent to graduates and employers and the data collected assists HGTC in meeting its training objectives and developing up-to-date curricula for its courses of study. The Career Center is located in Room 113 in the W. R. Stewart Building at the main campus.

Special needs counseling and services are available in the TRACS Center to those students with disabling conditions who may need individual educational plans, assistive technology, specialized equipment or books, or referral services. Evaluation and program development services are available through the Georgia Division of Rehabilitation Services. Students who know they need these services should contact the Director of Career Services at (478) 274-7643 or the Special Needs Facilitator at (478) 274-7786.

LIBRARY: Please use one of your best resources—the HGTC library located in Room 110 in Louie Livingston Hall on the Dublin campus. It is a new facility which has study rooms, a computer lab, casual seating, carrels for DVD/CD viewing, a coffee area, a children’s area all in a wireless environment. The library is open from 7:30 a.m. to 8:00 p.m. during the quarter. Please access www.heartofgatech.edu, Library Services link, for hours during quarter breaks. From any computer, students have access 24/7 to electronic resources with a quarterly password provided by their instructors. The friendly and helpful staff are available by phone (478) 275-6593, email www.library@heartofgatehc.edu or FAX (478) 275-6594 during business hours and electronically through the “Ask the Librarian” link (on the left side of the library home page) after hours for information the next day. The library welcomes suggestions for new materials from its patrons.

WITHDRAWING FROM CLASS: Students needing to withdraw from class should contact their instructor or program advisor. If the withdrawal date occurs prior to midterm/midcourse, the student will receive a grade of “W.” If the withdrawal occurs between midterm/midcourse and the end of the 8th academic week (or 80%) of the quarter and the student has a “60” or above average, the grade is “WP.” For learning support classes, the student must have a “70” or above average. If the student has a “59” or lower average, or “69” or lower average for learning support classes, the grade is “WF.” If the withdrawal occurs after the 8th academic week (or 80%) of the quarter, the grade is “F.”

GENERAL EDUCATION COMPETENCIES: Heart of Georgia Technical College has identified a set of core general education competencies designed to prepare graduates for successful careers. HGTC has identified the following general education competencies that graduates **must** attain prior to graduation:

- Basic Computer Skills
- Mathematical Reasoning and Problem Solving

- Reading Comprehension
- Standard Written English Usage

All graduates from a degree, diploma, or Technical Certificate of Credit with a general education component will be required to demonstrate a minimum level of achievement in each area prior to graduation. Degrees, diploma, or technical certificates of credit will not be issued to students prior to completion of this requirement nor will participation in graduation commencement be permitted. Students not attaining the required level must participate in remediation prior to taking the general education competency assessments again. Remediation is done through GAP training, and is available free to all students any time prior to or after testing. The assessments and required levels are as follows:

	Competency	Assessment	Level of Achievement
Associate degree students	Basic Computer Skills	In house computer competency exam	11 of 13 criteria met
	Mathematical Reasoning and Problem Solving	WorkKeys Applied Mathematics Exam and Locating Information Exam	Level 4
	Reading Comprehension	WorkKeys Reading for Information Exam	Level 4
	Standard Written English Usage	WorkKeys Writing Exam	Level 3
Diploma students and students enrolled in a TCC with a general education component*	Basic Computer Skills	In house computer competency exam	11 of 13 criteria met
	Mathematical Reasoning and Problem Solving	WorkKeys Applied Mathematics Exam and Locating Information Exam	Level 3
	Reading Comprehension	WorkKeys Reading for Information Exam	Level 3
	Standard Written English Usage	WorkKeys Business Writing Exam	Level 3

*For TCC's with a general education component, visit the HGTC webpage at www.heartofgatech.edu.

The Reading for Information assessment will be administered as part of your course (EMP 1000, PSY 1010, or PSY 1101). The Writing Test or Business Writing assessment will be administered as part of your course (ENG 1010 or ENG 1101). The computer competency exam will also be administered as part of your course (SCT 100).

To schedule the Applied Mathematics and Locating Information assessments (MAT 1011, MAT 1012, MAT 1013, or MAT 1111), contact the Assessment Specialist/Career Planner at (478) 274-7903 or register online at www.heartofgatech.edu. Click on the Georgia Work Ready logo on the bottom right of the screen. Indicate you are a HGTC student when you register.

All TCC students are required to participate in the following assessments: WorkKeys Applied Mathematics, WorkKeys Locating Information, and WorkKeys Reading for Information. No minimum score is required unless the TCC has a general education requirement.

COLLEGE POLICIES: Policies that affect all HGTC students can be located in the *Catalog/Student Handbook*, which is issued to all students at orientation. A copy of this publication is posted at www.heartofgatech.edu, click *Current Students* tab, click *Catalog/Student Handbook* link. The web version supersedes all other forms of publications in terms of revisions.

NON-DISCRIMINATION STATEMENT: As set forth in its student catalog, Heart of Georgia Technical College does not discriminate on the basis of race, color, creed, national or ethnic origin, gender, religion, disability, age, political affiliation or belief, veteran status, or citizenship status (except in those special circumstances permitted or mandated by law).

Title IX Coordinator: Director of Career Services, W. R. Stewart Building, Room 113F, (478) 274-7643

Section 504 Coordinator: Special Needs Facilitator, W. R. Stewart Building, Room 113E, (478) 274-7786

GRADING RUBRIC FOR RESEARCH PROJECT

<p>Content 70 percent</p> <p>12 Drugs present each contain</p> <ul style="list-style-type: none"> • Generic, trade, brand names • various available dosages, • forms, • interactions, • contraindications, • patient teaching, • routes of administration, • side effects, • pregnancy category, • action, • use, • adverse effects, • pharmacokinetics • picture of the drug (drawn or picture) <p>Other information that is deemed appropriate</p>	<p>Points Earned 70 points</p>	<p>Points Earned</p>	<p>Additional Comments</p>
<p>Organization/ Development 15 percent</p> <ul style="list-style-type: none"> • Creativity • All information present • Information is readable and understandable 	<p>Points Earned 15 points</p>	<p>Points Earned</p>	<p>Additional Comments</p>
<p>Mechanics 15 percent</p> <ul style="list-style-type: none"> • Information is typed using 11 or 12pt font, Arial or Times New Roman • Headings/ subheadings are appropriate • References are cited; reference page is present 	<p>Points Earned 15 points</p>	<p>Points Earned</p>	<p>Additional Comments</p>
	<p>Total Points= 100 points</p>	<p>Total Points Earned</p>	<p>Additional Comments</p>