



Course Syllabus

COURSE: HPRS 2200.201 (2:2:0) Pharmacology for Health Professions (2 Credit Hours)
SEMESTER: FALL 1 (8 week course)
CLASS DAYS: MONDAY
CLASS TIMES: 1:00PM – 3:00PM

INSTRUCTOR: KRISTIE A. COLE, M.ED., BAS, AAS, CST, FAST
OFFICE: RC223B
OFFICE HOURS: <https://calendly.com/kcole-5/srgt-appt>
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“South Plains College improves each student’s life.”

GENERAL COURSE INFORMATION

*It is the responsibility of each student to be familiar with the content and requirements listed in the course syllabus, SPC Student Handbook, and Program Handbook. *

COURSE DESCRIPTION

This course is a study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages.

Prerequisites: Medical Terminology and A&P

Corequisites: Introduction to Surgical Technology, Workplace Microbiology

COURSE OBJECTIVES AND LEARNING OUTCOMES

Cognitive Domain Objectives

- Define terminology, abbreviations, and symbols used in basic mathematics and measurement systems
- List common drugs used in surgery
- Define drug administration forms and routes
- List four drug classification categories and identify sub categories
- Explain information found on medication labels
- Define ratios and proportions
- Define the metric system
- State the procedure for labeling medications on the sterile back table
- Define terms related to antimicrobial therapy
- State the purpose of anticoagulation therapy and related
- List the basic function and types of blood
- Name the formed elements present in blood and their functions

- Define terms relating to cancer
- Define terms relating to preoperative medications
- List the classifications of antineoplastic agents
- Define terms relating to patient monitoring and anesthesia
- Recognize phases of general anesthesia
- List agents used to accomplish general anesthesia

Psychomotor Domain Objectives

- Obtain drug information from pharmacology resources
- Correctly calculate medication conversions and dosages
- Read and write decimals accurately
- Describe the role of the surgical technologist in medication administration
- Describe drug distribution systems in hospitals
- Describe four processes of pharmacokinetics
- Distinguish brand, generic, and chemical names of medications
- Convert civilian time to military time
- Convert between fractions and decimals
- Use ratios and proportions to solve problems
- Convert temperatures between Fahrenheit and Celsius scales
- Explain the “six rights” of medication administration
- Identify supplies used in medication administration in surgery
- Describe various ways in which antimicrobials work
- Differentiate between the purposes of short-term and long-term use diuretics
- Describe the physiology of blood clot formation
- Describe antigen-antibody interactions in blood types
- Describe the process for blood replacement in surgery using donor blood from the blood bank
- Identify different types of abnormal cell growth
- Explain regional blocks
- Describe the process of endotracheal intubation
- State the names and purposes of medications used in emergency situations

Affective Domain Objectives

- Discuss expected actions and adverse reactions of commonly administered drugs in surgery
- Discuss federal and state roles in regulating drugs
- Obtain medical information from pharmacological resources
- Compare and contrast administration route, onset of action, antagonist, and purpose of parenteral and oral anticoagulants
- Compare and contrast local, monitored, and regional anesthesia
- Discuss medications administration routes used in surgery
- Discuss Federal and State roles in regulating drugs
- Demonstrate aseptic techniques for the delivery of medications to the sterile field
- Discuss antibiotic resistance
- Explain anticoagulation therapy and its purpose
- Explain the physiology of fluid loss in the surgical patient
- Discuss carcinogens found in our environment
- Describe the types and functions of patient monitoring equipment devices
- Demonstrate the role of the Surgical Technologist in a malignant hyperthermia crisis

OUTCOME ASSESSMENT METHODS

Assessment methods for this course are both formative and summative.

Formative assessments include:

- Discussions
- Quizzes
- Unit exams
- Classroom
- Lab Activities
- Case Study/Presentation

Summative assessments include:

- A comprehensive final exam.

Evaluation methods

Computer-based exams, written exams, written assignments, quizzes, skills base exams, and other projects as assigned.

Instructional methods

Methods of Instruction may include:

- Lecture
- Discussion
- Audio-Visual
- Reading assignments
- Written assignments
- Exams
- Class Presentation

GRADING FORMULA

A minimum of 75% on all exams and assignments is required to receive a passing grade for that exam or assignment. Students must earn an overall grade of 75% or better for each course section to pass that section.

Grades in this course will be determined using the following criteria:

The course grade will be determined by a combination of major exams, chapter homework, quizzes, and a comprehensive final exam. Exam dates will be announced. The following guidelines will be followed regarding coursework:

1. The student is expected to complete the exam at the scheduled time. Make-up exams will **NOT** be given.
2. Late assignments will not be accepted.
3. The final exam is comprehensive.

Assessment Tools	%
MindTap – Chapter Assignments	30%
Chapter Exams	20%
Comprehensive Didactic Final Exam (1)	20%
Library Assignments (1)	30%

Percentage Score	Grade
90-100	A
80-89	B
75-79	C

0-74	F
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A final grade average of C (75) must be maintained in all Surgical Technology classes. You must pass this course to proceed to the next semester. Failure to maintain grades will be a dismissal of the SRTG program.

Grading Policies

To successfully complete this course, students are required to achieve a grade of 75% or higher. Those who do not meet this passing requirement will not be permitted to proceed within the SPC program.

ASSIGNMENT SUBMISSION POLICY

All assignments must be completed by the assigned due date. Late and/or incomplete work will not be accepted and a grade of zero will be recorded. Assignments, quizzes, exams, and skills that are missed due to an unexcused absence may not be made up. See the instructor for more specific information.

Exam Policy

The majority of student 'written' exams will be administered via computer to prepare them for the National Registry exam and some exams will be handwritten which will encourage memory and mastery of the material. Students should practice proper spelling and grammar when answering a written exam.

Additionally, many exam questions will be constructed in the same manner as national registry questions, allowing students to prepare for that testing format.

Examinations are scheduled to commence at the start of the class, unless otherwise specified. Students who arrive more than 10 minutes late after the exam begins will not be permitted to take the test, and a score of zero will be assigned. Quizzes may be either spontaneous or scheduled, necessitating mandatory attendance for all course sections. Missing any quiz will result in a zero grade, as there are no makeup opportunities for quizzes.

SPC Campus Policies

For information regarding official South Plains College statements about intellectual exchange, disabilities, non-discrimination, Title V Pregnancy Accommodations, CARE Team, COVID, and Campus Concealed Carry, please visit: <https://www.southplainscollege.edu/syllabusstatements/>



STUDENT CONDUCT

Rules and regulations relating to the students at South Plains College are made with the view of protecting the best interests of the individual, the general welfare of the entire student body and the educational objectives of the college. As in any segment of society, a college community must be guided by standards that are stringent enough to prevent disorder, yet moderate enough to provide an atmosphere conducive to intellectual and personal development.

A high standard of conduct is expected of all students. When a student enrolls at South Plains College, it is assumed that the student accepts the obligations of performance and behavior imposed by the college relevant to its lawful missions, processes and functions. Obedience to the law, respect for properly constituted authority, personal honor, integrity and common sense guide the actions of each member of the college community both in and out of the classroom.

Students are subject to federal, state and local laws, as well as South Plains College rules and regulations. A student is not entitled to greater immunities or privileges before the law than those enjoyed by other citizens. Students are subject to such reasonable disciplinary action as the administration of the college may consider appropriate, including suspension and expulsion in appropriate cases for breach of federal, state or local laws, or college rules and regulations. This principle extends to conduct off-campus which is likely to have adverse effects on the college or on the educational process which identifies the offender as an unfit associate for fellow students.

Any student who fails to perform according to expected standards may be asked to withdraw.

Rules and regulations regarding student conduct appear in the current Student Guide.

ACADEMIC INTEGRITY

It is the aim of the faculty of South Plains College to foster a spirit of complete honesty and a high standard of integrity. The attempt of any student to present as his or her own any work which he or she has not honestly performed is regarded by the faculty and administration as a most serious offense and renders the offender liable to serious consequences, possibly suspension.

Cheating: Dishonesty of any kind on examinations or on written assignments, illegal possession of examinations, the use of unauthorized notes during an examination, obtaining information during an examination from the textbook or from the examination paper of another student, assisting others to cheat, alteration of grade records, illegal entry or unauthorized presence in the office are examples of cheating. Complete honesty is required of the student in the presentation of any and all phases of coursework. This applies to quizzes of whatever length, as well as final examinations, to daily reports and to term papers.

Plagiarism: Offering the work of another as one's own, without proper acknowledgment, is plagiarism; therefore, any student who fails to give credit for quotations or essentially identical expression of material taken from books, encyclopedias, magazines and other reference works, or from themes, reports or other writings of a fellow student, is guilty of plagiarism.

Attendance:

Students are expected to attend all classes in order to be successful in a course. The student may be administratively withdrawn from the course when absences become excessive, as defined in the course syllabus.

When an unavoidable reason for class absence arises, such as illness, an official trip authorized by the college or an official activity, the instructor may permit the student to make up work missed. It is the student's responsibility to complete work missed within a reasonable period of time as determined by the instructor. Students are officially enrolled in all courses for which they pay tuition and fees at the time of registration. Should a student, for any reason, delay in reporting to a class after official enrollment, absences will be attributed to the student from the first class meeting.

Students who enroll in a course but have "Never Attended" by the official census date, as reported by the faculty member, will be administratively dropped by the Office of Admissions and Records. A student who does not meet the attendance requirements of a class as stated in the course syllabus and does not officially withdraw from that course by the official census date of the semester, may be administratively withdrawn from that course and receive a grade of an "F" as determined by the instructor. Instructors are responsible for clearly stating their administrative drop policy in the course syllabus, and it is the student's responsibility to be aware of that policy.

It is the student's responsibility to verify administrative drops for excessive absences through MySPC using his or her student online account. If it is determined that a student is awarded financial aid for a class or classes in which the student never attended or participated, the financial aid award will be adjusted in accordance with the classes in which the student did attend/participate and the student will owe any balance resulting from the adjustment.

(http://catalog.southplainscollege.edu/content.php?catoid=47&navoid=1229#Class_Attendance)

Due to the importance of the emergency medical information being taught, the instructor of this course defines excessive absences as missing the 4th class day (or having equivalent tardies) in a course section. A student who meets these criteria will be administratively dropped from the course by the instructor.

- Tardies: (Definition): arriving any time after the class has started or not returning from an approved break after class has started.
- Two tardies will be considered missing one class day and counted as such.
- Work schedule is not an excuse for missing class.
- Any exceptions to this policy must be discussed on an individual basis with the course instructor and the SRGT Program Director. (i.e. – student hospitalization, immediate family member death, etc.)

Drop and Schedule Change:

Students should submit a [Student Initiated Drop Form](#) online.

Students will not be required to obtain an instructor signature to drop, however, we do encourage students to communicate with instructors or advisors prior to dropping a course when they are able. **There will be no charge for drops for the fall or spring semesters.**

Withdrawing from all classes

If a student wishes to withdraw from all courses, they should initiate that process with the Advising Office. They can schedule an appointment with an advisor by visiting <http://www.southplainscollege.edu/admission-aid/advising/spcadvisors.php> or by calling 806-716-2366.



Syllabus Statements

For information regarding official South Plains College statements about intellectual exchange, disabilities, non-discrimination, Title V Pregnancy Accommodations, CARE Team, and Campus Concealed Carry, please visit: <https://www.southplainscollege.edu/syllabusstatements/>

COMMUNICATION

Email

Electronic communication between instructor and students in this course will utilize the South Plains College “My SPC” and email systems. I will utilize Remind messaging and you may communicate with me this way also. The instructor will not initiate communication using private email accounts. Students are required to check SPC email on a regular basis each week of class. Students will also have access to assignments, web-links, handouts, and other vital material which will be delivered via the classroom website. Any student having difficulty accessing the classroom website or their email should immediately contact their instructor for directions. The instructor will work with any student to ensure the student has access to a computer on campus and can obtain the needed class content that is located on the course website.

- **Instructor will not communicate using private email accounts.**
- **I will return e-mails within 24 hours. If you need immediate assistance, please call me 806-716-4643. If leaving a message please give your name, student ID #, and a good phone # to return your call.**

Cell Phone/Smart watch policy

Cell Phones – Cell phones are to be turned OFF or silenced during scheduled class periods. **Text messaging is not allowed during scheduled class/lab times.** Cell phones are to be used outside the classroom or lab only on designated breaks. Students are not allowed to have cell phones on their person during exams.

Social Media

FACEBOOK/INSTAGRAM

The Surgical Technology Program has a Facebook page at <https://www.facebook.com/SPCSurgicalTechnology> . In addition to the South Plains College website, this Facebook page will be used to keep students up-to-date on program activities, weather delays, South Plains College announcements and will help with program recruitment. “Liking” the Surgical Technology Facebook page is not mandatory, nor are personal Facebook accounts, to access this page.

Students are NOT allowed to contact faculty (full-time or part-time) through ANY Social Media platforms. This form of contact is not acceptable and extremely unprofessional and could result in dismissal from the Surgical Technology Program.

RESOURCES

Blackboard

Blackboard is an e-Education platform designed to enable educational innovations everywhere by connecting people and technology. This educational tool will be used in this course throughout the semester.

Text and Course materials:

Textbook(s):



Practical Pharmacology for the Surgical Technologist + MindTap® Surgical Technology, 2 terms (12 months) Instant Access ISBN10: 1-337-19148-5
ISBN13: 978-1-337-19148- (Text) and MindTap

Computer: Needed for all exams, homework, and assigned projects. While a personal computer is not mandatory, multiple computer labs are available for student use during school hours, and laptops can be borrowed for in-class exams.

Onedrive: Each student must have a Onedrive account for the duration of the Surgical Technology Program. The Program Director or course instructor may request the uploading of files through this platform at various points throughout the course. This is FREE for every student.

SPC EMAIL – Students are required to have their SPC email in working order at all times.

- Instructor will not communicate using private email accounts.
- I will return e-mails within 24 hours. If you need immediate assistance, please call me 806-716-4643. If leaving a message please give your name, student ID #, and a good phone # to return your call.

Remind – Students are required to sign up for Remind for the duration of the Surgical Technology Program, this is used for program communication. Students may use Remind system to alert the instructor after 7:00 am and before 8:00 pm. This system is NOT for use on testing, assignment or project questions please email the course instructor.

Additional Classroom Requirements:

METHODS OF TEACHING

- Lecture
- PowerPoint Presentation
- Question and Discussion
- Review
- Quizzes
- Examinations

Students should come to class prepared with pens, pencils, and a spiral notebook for taking notes or completed quizzes or assignments in class. Students should be prepared to take notes over lecture material if they choose.

Computer Usage:

As computer technology in the field of health occupations continues to become more popular, computers will be used in this course for several assignments. All students have access to computers and printers on the South Plains College campus. Students will be expected to utilize computers to access assignments and classroom resources. All registered students are supplied with a working email account from South Plains College. In order to take exams, students must have their username and password.

ALL STUDENTS ARE EXPECTED TO KNOW THEIR SPC STUDENT USERNAME AND PASSWORD.

Computer Lab Usage:

The computer lab(s) on any campus may be used by students during scheduled hours or as assigned by an instructor. Printer paper will not be provided for students to print materials but students may seek assistance from faculty or staff to request lab paper from the college if needed. Lack of computer lab paper is not an excuse for not having homework assignments, skills lab sheets, or any other required documents. Students should come prepared for class.

COURSE SCHEDULE

Refer to Blackboard for course schedule and due dates on assignments

Tests

1. Chapters 1-2
2. Chapters 3-6
3. Chapters 7-10
4. Chapters 1-10 Final

Week	Assignments Exams - Monday	<i>Drug Card Reference Approval September 7</i>	<i>Drug Card Due SUNDAY</i>
WEEK 1 Monday: 8/25 Sunday: 8/31	Syllabus Review Drug Card Review Chapter 1		
WEEK 2 Monday: 9/1 Sunday: 9/7	Chapter 2 and 3 Chapter 2 and 3	ALL DRUG CARDS Reference	
WEEK 3 Monday: 9/8 Sunday: 9/14	EXAM- Chapter 1-3; Chapter 4		DRUG CARDS – 1-3 DUE TODAY
WEEK 4 Monday: 9/15 Sunday: 9/21	Chapter 5 and Chapter 6		DRUG CARDS – 4-5 DUE TODAY
WEEK 5 Monday: 9/22 Sunday: 9/28	Exam – Chapter 4-6; Chapter 7		DRUG CARDS – 6-7 DUE TODAY
WEEK 6 Monday: 9/29 Sunday: 10/5	Chapter 8 and Chapter 9		DRUG CARDS – 8-9 DUE TODAY
WEEK 7 Monday: 10/6 Sunday: 10/12	Exam – Chapter 7-9; Chapter 10		DRUG CARDS – 10-12 DUE TODAY

Chapter Overview Objectives:

Chapter 1

Definition of the Term *Pharmacology*

Brief History (Time Line) of Pharmacology

Laws, Policies, and Procedures

- International Support
- Federal Law
- State Law
- Facility Policies and Procedures
- Verbal Orders as Accepted Practice

Medication Publications

- Physician's Desk Reference
- United States Pharmacopeia and National Formulary
- National Drug Code Directory
- American Hospital Formulary Service (AHFS) Index
- The Medical Letter on Drugs and Therapeutics
- The Joint Commission
- National Patient Safety Goals

Medication/Solution Violations

- Narcotic Precautions
- Personal Negligence
- Consequences to Patient

Chapter 2

Dimensional Analysis

Basic Math

- Fractions
- Ratios
- Proportions

Numbering and Measurement Systems

- Roman Numeral System
- Military Time
- International Units
- Milliequivalent Measures
- Apothecary System
- Household System
- Metric System/Système International d'Unités (SI)
- Temperature Conversion

Dosage Calculation

Mixing Medications

- Combining Medications
- Reconstituting Medications
- Concentrating and Diluting Medications

Chapter 3

Drug Nomenclature

- Chemical Name
- Generic Name
- Proprietary (Brand or Trade) Name

Drug Classifications

- Over-The-Counter
- Prescription
- Controlled Substances
- Principal Action
- Body System Affected
- Physiological Action
- Therapeutic Action
- Alternative and Complimentary Medications

Chapter 4

Drug Sources

- Animal (Zoologic) Sources
- Biotechnology (Recombinant DNA Technology)
- Laboratory Synthesis
- Mineral Sources
- Plant (Botanic) Sources

Chapter 5

Drug Forms

- Gas
- Liquid
- Solid

Chapter 6

Routes of Administration

- Enteral
- Inhalation
- Instillation
- Parenteral
- Topical
- Other

Chapter 7

Pharmacokinetics

- Liberation
- Absorption
- Distribution
- Metabolism (Biotransformation)
- Excretion
- Factors That Affect Pharmacokinetics

Chapter 8

Pharmacodynamics

- Three Aspects of Pharmacodynamics
- Medication Actions
- Indications
- Contraindication
- Side Effects
- Adverse Effects
- Toxic Effects
- Teratogenic Effects
- Iatrogenic Response
- Tolerance
- Addiction
- Withdrawal

Chapter 9

Drug Handling

- Safe Medication Practices
- Drug Dispensing Systems
- Electronic Medication Administration Record Keeping System
- Drug Packaging
- Drug Labels and Package Inserts
- Drug Handling Supplies
- Medication Preparation in a Nonsterile Area
- Transfer to the Sterile Field

Chapter 10

Medications Commonly Used in the Surgical Environment

- Amnesics
- Analgesics/_Antipyretics
- Anesthesia Agents
- Anticoagulants/_Fibrinolytics
- Anticonvulsants
- Antiemetics
- Antihistamines
- Anti-Infective Agents
- Antineoplastics (Chemotherapy Agents)
- Autonomic Agents
- Blood Replacement Interventions
- Cardiovascular Agents
- Central Nervous System Stimulants
- Coagulants/_Hemostatics
- Contrast Media
- Diuretics
- Dyes/Stains
- Emergency Drugs
- Emetics
- Gastric Agents
- Hormones
- Inhalation Agents
- Irrigation Solutions
- IV Fluids

- Lubricants
- Narcotic Antagonists
- Narcotic Analgesics
- Neuroleptics/_Tranquilizers
- Obstetrical Agents

- Ophthalmic Agents
- Sedatives/_Hypnotics
- Vagal Blockers
- Vasodilators
- Vasoconstrictors

SYLLABI ACKNOWLEDGEMENT STATEMENT

Required completion by the end of Week 1, Sunday, by 11:59pm.

After reading and understanding the contents of this syllabus:

- Go to SPC's Blackboard, <https://southplainscollege.blackboard.com>
- Choose the _____ course
- Click on the Course content area
- Click on Syllabus Acknowledgment
- Click on Create Thread
- In the Subject field type: Syllabus
- In the Message field type:

I, (fill in your first and last name), student ID (xxxxxxx), have received, read, and understand the contents of the syllabus for the (Course title and number), Spring 2024. Date (today's date).