

Reese Campus

### Course Syllabus

COURSE: HPRS 2200 (2:2:0) Pharmacology for Health Professions (2 Credit Hours)  
SEMESTER: Summer (June-August; 10 Week Semester)  
CLASS TIMES: Tuesday (online); Thursday 9:00-10:00am (Lecture only, no lab)  
INSTRUCTOR: Kristie Cole, BAS,CST  
OFFICE: Reese Campus, Building 5 Rm. 528  
OFFICE HOURS: By Appointment Only  
OFFICE PHONE: 806-716-4643  
E-MAIL: [kcole@southplainscollege.edu](mailto:kcole@southplainscollege.edu)  
PROGRAM FACEBOOK: <https://www.facebook.com/SPCSurgicalTechnology>

**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, in order to access this page.**

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.

*"South Plains College improves each student's life."*

## GENERAL COURSE INFORMATION

### COURSE DESCRIPTION

A study of drug classifications, actions, therapeutic uses, adverse effects, routes of administration, and calculation of dosages.

### STUDENT LEARNING OUTCOMES

Students will:
1. Be able to demonstrate an understanding of medications as they relate to the role of a surgical technologist. F-1, F-2, F-3, F-4, F-5, F-6, F-11, F-12, C-1, C-5, C-6, C-7, C-8
2. Be able to name, classify, and designate route of administration of medications related to surgery: F-1, F-2, F-5, F-11, F-12, C-1, C-5, C-6, C-7, C-8
3. Be familiar with laws and regulations concerning medications, labels, and regulating government agencies: F-1, F-2, F-3, F-5, F-6, F-11, F-12, C-1, C-5, C-6, C-7, C-8, C-15
4. Be able to compute measurements, quantity and strength of medications with precision: F-1, F-2, F-3, F-4, F-5, F-6, F-8, F-9, F-11, F-12, C-1, C-5, C-6, C-7, C-8

### COURSE OBJECTIVES

#### The 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

### **The 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

### **The 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

### OUTCOMES ASSESSMENT METHODS

Assessment methods for this course are both formative and summative.

#### Formative assessments include:

- Discussions
- Quizzes
- Unit exams
- Classroom activities
- Research activities

#### Summative assessment will be:

- A comprehensive final exam

### 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, drug cards and term papers. Individual work is required on the drug cards. Use of ANY electronic device during quizzes or tests is considered cheating. The instructor reserves the right to alter seating arrangements during tests and quizzes. No hats/caps may be worn during tests/quizzes. Any verbal or non-verbal communication during tests/quizzes will be considered cheating. All items except test and writing instrument must be removed from the desk. No programmable calculators or cell phone/ipod type calculators may be used. The instructor reserves the right to supply a calculator and writing instruments to students.

**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, or "term paper mill" or website is guilty of plagiarism. A grade of "0" will be given on the assignment.

## SCANS and FOUNDATION SKILLS

Refer also to Course Objectives. SCANS and Foundation Skills attached.

## VERIFICATION OF WORKPLACE COMPETENCIES

This course has no Capstone Component.

## SPECIFIC COURSE INFORMATION

### TEXT AND MATERIALS



Pharmacology for the Surgical Technologist, Third Edition: Katherine C. Snyder and Chris Keegan  
ISBN: 978-1-4377-1002

### Additional Library Resources

Handouts

Research Material

### ATTENDANCE POLICY

**Please Read Carefully** – Punctual and regular class attendance is required of all students attending South Plains College Surgical Technology Program. Excessive Absences are grounds for dismissal.

1. The student is only allowed three (3) absences for the semester. ***No “excused absences”.***
2. On the fourth (4<sup>th</sup>) absence, the student will be dropped from class.
3. A tardy is given if the student is not present within the first 5 minutes of the class period or the student is tardy after break.
4. Two (2) tardies equal one (1) absence.
5. If a student misses more than thirty minutes of a class session, a full absence will be given.
6. Class cancellation for inclement weather: please listen to media announcements regarding class cancellation per SPC president. Please provide emergency contact numbers to mySPC.

### ASSIGNMENT POLICY

The student is required to read assigned reading prior to lecture hour. Pop quizzes may be given over reading material and are not eligible for makeup. A grade of “0” will be given if absent during the quiz. At the discretion of the instructor, an essay exam, or alternative may be given if the student is absent on the day of a test. Assignments are due at the beginning of class. ***Ten points will be deducted from the grade each day the paper is not turned in.***

**GRADING POLICY** - Grades in this course will be determined using the following criteria:

The student must maintain a grade of “C” or better during the semester. A student who does not maintain a grade of 75 or better will be dismissed from the program.

Test Average	30%
Library Assignments	50%
Final Exam	20%
Total	100%

Grades	91 – 100 = A
	81 – 90 = B

75 – 80 = C

Below 75 is failing

A final grade average of C (75) must be maintained in all Surgical Technology classes. You must pass all courses to proceed to the next semester.

### COMMUNICATION POLICY

- Electronic communication between instructor and students in this course will utilize the South Plains College “My SPC” and email systems. Instructor will not initiate or respond to communication using private email accounts. Students are encouraged to check SPC email on a regular basis. If the student contacts the instructor via phone, please state your name and number clearly.

### STUDENT CONDUCT

- Students in this class are expected to abide by the standards of student conduct as defined in the SPC Student Guide pages 11-14.

### SPECIAL REQUIREMENTS

- Students may **not** use visual or audio recording devices, cell phones, programmable calculators, or ANY electronic devices at ANY time during class.
- **Instructor Policy** – Conduct yourself as a future professional member of the health care team. While the instructor is speaking, be quiet and allow others to learn. Do not visit with fellow students during class. Visit with others during breaks and after class. Students who disturb others will be asked to leave class and a full day’s absence recorded. Seating arrangement may be changed by the instructor.

### Tests

1. Chapters 1 - 4
2. Chapters 5 – 8
3. Chapters 9 – 12
4. Chapters 13 – 16

### Final Exam:

Chapters 1 – 16 **AND** fractions, decimals, percentages, time/temp conversions, medical abbreviations, ratio and proportion, systems of measurements, dose calculations.

### Grading Policy:

Please note: Fraction questions will be counted wrong if the answer is not reduced to the lowest term.

Incorrect:	$\frac{2}{4}$	Correct:	$\frac{1}{2}$
Incorrect:	$\frac{9}{2}$	Correct:	$4\frac{1}{2}$

Decimal questions will be counted wrong if trailing zeroes are used OR if decimal amounts less than 1 are NOT preceded by a zero. This is a safety issue and is a mandate from several accrediting agencies.

Incorrect:	.750	Correct:	0.75
Incorrect:	.3	Correct:	0.3
Incorrect:	0.30	Correct:	0.3

## COURSE OUTLINE

Reading Assignments and Course Schedule – subject to change by Faculty

Week 1, 2, 3: Unit I:

Week 4: UNIT I Test (23<sup>th</sup>)

Week 4 and 5: Unit II Part I

Week 6: UNIT II Part I Test (30<sup>th</sup>)

Week 6 and 7: Unit II Part II

Week 8 Unit II part II Test (14<sup>th</sup>)

Week 8 and 9: Unit III, Test Week 9 (28<sup>th</sup>)

Week 10: Comprehensive Final : UNIT I, II, and III (Aug 4<sup>th</sup>)

Reference Approval:

June 14: Drug Card: 1-3

June 21: Drug Card: 4-5

June 28: Drug Card: 6-7

July 5: Drug Card 8-9

July 12: Drug Card 10

July 19: Drug Card 11-12

Drug Card Due Date:

June 23: Drug Card 1-3

June 30: Drug Card 4-5

July 7: Drug Card 6-7

July 14: Drug Card 8-9

July 21: Drug Card 10

July 28: Drug Card 11-12

Homework will be assigned. This will be part of your online assignments.

The student will use an appropriate medical/nursing resource to research the following medications:

Medications:

Card #1	Fentanyl (IV use only, for anesthesia, not patch, not chronic use)
Card #2	Propofol
Card #3	Versed (IV use only, for anesthesia)
Card #4	Bupivacaine
Card #5	Lidocaine
Card #6	Levophed
Card #7	Mannitol
Card #8	Bacitracin
Card #9	Vancomycin
Card #10	Dantrolene
Card #11	Heparin
Card #12	Protamine

Utilize appropriate medical/nursing resources for the health care professional – such as the PDR, anesthesia or nursing reference guides, and formularies. The reference may be no older than ten years. No credit will be given if the student utilizes non-health care related materials or does not follow directions. A grade of 0 will be given if the student uses non-health care related material, such as family or home medical guides, or websites that are directed toward the lay public, such as Wikipedia or Web MD. The references must be approved in advance. Numerous points will be deducted for failure to follow instructions. **The entire project will receive a grade of “0” for ANY aspect of cheating or plagiarism. Failing this project with a grade of “0” will result in course failure.**

There are several due dates for this assignment. You will need to turn in references for approval for each drug card, on the assigned dates. **Failure to turn in the references will result in five (5) points deducted from that card, each day the reference is late.** All work must be turned in at the beginning of class, in order to not be counted late.

FIVE AREAS OF RELEVANCE TO THE SURGICAL PATIENT MUST BE INDICATED ON THE COPY OF THE REFERENCES.

Specific instructions for references:

Highlight the drug adverse effects in **orange** highlighter

Highlight the treatment of overdose and reversal agent in **green** highlighter

Highlight the 5 areas of relevance to the surgical setting in **yellow**, and number

Ten (10) points deducted for each day the drug card is not turned in. **Cards not turned in at the start of class will be considered 1 day late.**

Students must use the attached form, making additional copies. The information must be neatly **hand-printed using black or blue ink**. Do not type the drug cards.

A photocopy of the references must be turned in with each drug card. Please staple or paper clip the references to the drug card.

The average of the 10 cards will constitute 50% of the student’s overall grade and must be completed and passed in order to pass the course.

**DRUG CARD**

**Drug Card** Please neatly print, using black or blue ink, card stock paper preferred.

Student name \_\_\_\_\_ Student Number \_\_\_\_\_

Possible points (100)

10 Generic name: \_\_\_\_\_ Brand/Trade name: \_\_\_\_\_

10 Reference(s) Title, Author, publisher, date, page (OR) Complete website address AND turn in copy of the reference

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5 Indications for use \_\_\_\_\_

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10 Contraindications and/or cautions: \_\_\_\_\_

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List AND provide details regarding 5 possible SERIOUS adverse reactions:

5 \_\_\_\_\_

5 \_\_\_\_\_

5 \_\_\_\_\_

5 \_\_\_\_\_

5 \_\_\_\_\_

20 Give **DETAILS** Re: Treatment of overdose, include reversal agent

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**DETAILS** regarding this medication **relevant to the surgical patient.**

5 \_\_\_\_\_

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5 \_\_\_\_\_

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5 \_\_\_\_\_

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5 \_\_\_\_\_

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## ACCOMMODATIONS

### DIVERSITY STATEMENT

In this class, the teacher will establish and support an environment that values and nurtures individual and group differences and encourages engagement and interaction. Understanding and respecting multiple experiences and perspectives will serve to challenge and stimulate all of us to learn about others, about the larger world and about ourselves. By promoting diversity and intellectual exchange, we will not only mirror society as it is, but also model society as it should and can be.

### DISABILITIES STATEMENT

Students with disabilities, including but not limited to physical, psychiatric, or learning disabilities, who wish to request accommodations in this class should notify the Disability Services Office early in the semester so that the appropriate arrangements may be made. In accordance with federal law, a student requesting accommodations must provide acceptable documentation of his/her disability to the Disability Services Office. For more information, call or visit the Disability Services Office through the Guidance and Counseling Centers at Reese Center (Building 8) [716-4606](tel:716-4606), or Levelland (Student Services Building) [716-2577](tel:716-2577).

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## FOUNDATION SKILLS

### **BASIC SKILLS—Reads, Writes, Performs Arithmetic and Mathematical Operations, Listens and Speaks**

F-1 Reading—locates, understands, and interprets written information in prose and in documents such as manuals, graphs, and schedules.

F-2 Writing—communicates thoughts, ideas, information and messages in writing and creates documents such as letters, directions, manuals, reports, graphs, and flow charts.

F-3 Arithmetic—performs basic computations; uses basic numerical concepts such as whole numbers, etc.

F-4 Mathematics—approaches practical problems by choosing appropriately from a variety of mathematical techniques.

F-5 Listening—receives, attends to, interprets, and responds to verbal messages and other cues.

F-6 Speaking—organizes ideas and communicates orally.

### **THINKING SKILLS—Thinks Creatively, Makes Decisions, Solves Problems, Visualizes and Knows How to Learn and Reason**

F-7 Creative Thinking—generates new ideas.

F-8 Decision-Making—specifies goals and constraints, generates alternatives, considers risks, evaluates and chooses best alternative.

F-9 Problem Solving—recognizes problems, devises and implements plan of action.

F-10 Seeing Things in the Mind's Eye—organizes and processes symbols, pictures, graphs, objects, and other information.

F-11 Knowing How to Learn—uses efficient learning techniques to acquire and apply new knowledge and skills.

F-12 Reasoning—discovers a rule or principle underlying the relationship between two or more objects and applies it when solving a problem.

### **PERSONAL QUALITIES—Displays Responsibility, Self-Esteem, Sociability, Self-Management, Integrity and Honesty**

F-13 Responsibility—exerts a high level of effort and perseveres towards goal attainment.

F-14 Self-Esteem—believes in own self-worth and maintains a positive view of self.

F-15 Sociability—demonstrates understanding, friendliness, adaptability, empathy and politeness in group settings.

F-16 Self-Management—assesses self accurately, sets personal goals, monitors progress and exhibits self-control.

F-17 Integrity/Honesty—chooses ethical courses of action.

## SCANS COMPETENCIES

C-1 **TIME** - Selects goal - relevant activities, ranks them, allocates time, prepares and follows schedules.

C-2 **MONEY** - Uses or prepares budgets, makes forecasts, keeps records and makes adjustments to meet objectives.

C-3 **MATERIALS AND FACILITIES** - Acquires, stores, allocates, and uses materials or space efficiently.

C-4 **HUMAN RESOURCES** - Assesses skills and distributes work accordingly, evaluates performances and provides feedback.

### **INFORMATION - Acquires and Uses Information**

C-5 Acquires and evaluates information.

C-6 Organizes and maintains information.

C-7 Interprets and communicates information.

C-8 Uses computers to process information.

### **INTERPERSONAL—Works With Others**

C-9 Participates as members of a team and contributes to group effort.

C-10 Teaches others new skills.

C-11 Serves Clients/Customers—works to satisfy customer's expectations.

C-12 Exercises Leadership—communicates ideas to justify position, persuades and convinces others, responsibly challenges existing procedures and policies.

C-13 Negotiates—works toward agreements involving exchanges of resources; resolves divergent interests.

C-14 Works With Diversity—works well with men and women from diverse backgrounds.

### **SYSTEMS—Understands Complex Interrelationships**

C-15 Understands Systems—knows how social, organizational, and technological systems work and operates effectively with them.

C-16 Monitors and Corrects Performance—distinguishes trends, predicts impacts on system operations, diagnoses systems performance and corrects malfunctions.

C-17 Improves or Designs Systems—suggests modifications to existing systems and develops new or alternative systems to improve performance.

### **TECHNOLOGY—Works with a Variety of Technologies**

C-18 Selects Technology—chooses procedures, tools, or equipment, including computers and related technologies.

C-19 Applies Technology to Task—understands overall intent and proper procedures for setup and operation of equipment.

C-20 Maintains and Troubleshoots Equipment—prevents, identifies, or solves problems with equipment, including computers and other technologies.



I \_\_\_\_\_ have received a copy of the South Plains College Student Guide. I understand that I must comply with all areas of the Student Guide as a student in the Surgical Technology Program and South Plains College.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date