



Technical College of the Lowcountry
921 Ribaut Rd.
Beaufort, SC 29901

JoLane Collins
Bldg. 4, Room 202
843-470-8415
jmcollins@tcl.edu

AHS 121
Surgical Pharmacology
Spring 2017

Course Description

AHS 121 Basic Pharmacology
Lecture, 2 Lab, 0; Cr. 2
(Web based class)

This course covers the nature of drugs, their actions in the body, side effects, and introductory aspects of anesthesia.

Prerequisite: SUR 101, SUR 110, AHS 130, BIO 112 and acceptance into Surgical Technology Program.

Corequisite: SUR 103, SUR 104, SUR 106, ENG 101, PSY 201, AHS 103, and CPT 101 or CPT 170.

Course Focus

This course covers the nature of drugs, their actions in the body and side effects.

Text and References

Snyder, K., Keegan, C. (2006). *Pharmacology for the Surgical Technologist*, Fourth Edition. St. Louis: Saunders

OBJECTIVES/LEARNING OUTCOMES

1. Identify the actions and side effects of drugs commonly used in the surgical setting.
2. Apply fractions, decimals, percentages, ratios and proportions, conversions, and measurement systems to medication dosage and administration.
3. Employ accepted medical terminology regarding medication usage and administration.
4. Describe proper preparation and management of medications and solutions in the surgical setting.

COURSE TOPIC OUTLINE:

1. Basic Mathematics
2. Basic Pharmacology
3. Medication Development, Regulation and Resources
4. Medication Administration

Revised: 12.08.16/JCollins / Approved: GMLevicki 12/2016

5. Antibiotics
6. Diagnostic Agents
7. Diuretics
8. Hormones
9. Medications that Affect Coagulation
10. Ophthalmic Agents
11. Fluids and Irrigation Solutions
12. Antineoplastic Chemotherapy Agents
13. Preoperative Medications
14. Patient Monitoring and Local and Regional Anesthesia
15. General Anesthesia
16. Emergency Situations

CONTENT OUTLINE:

- A. Medication measurements
- B. Terminology
- C. Types of medication actions/effects
- D. Abbreviations
- E. Medication/solution violations
- F. Laws, policies and procedures
- G. Medication publications
- H. Sources of medications
- I. Pharmaceutical preparations
- J. Routes of administration
- K. Care and handling of medications and solutions
- L. Medications used in surgery
 1. Analgesics
 2. Narcotics
 3. Narcotics antagonists
 4. Analgesic antipyretic agents
 5. Sedative-hypnotic agents
 6. Tranquilizers
 7. Anticonvulsants
 8. Central nervous system stimulant
 9. Antiemetics and antihistamines
 10. Cardiac medications
 11. Autonomic agents
 12. Coagulants and hemostatic agents
 13. Anticoagulants and fibrinolytics
 14. IV fluids
 15. Blood replacement
 16. Diuretics
 17. Ophthalmic medications
 18. Gastric medications
 19. Obstetrical agents
 20. Hormones

21. Anti-infective agents
22. Contrast media
23. Antineoplastic chemotherapy
24. Dyes
25. Irrigation solutions

COURSE GOALS

The following list of course goals will be addressed in the course. These goals are directly related to the performance objectives. (*designates a CRUCIAL goal)

1. calculate medication conversions
2. calculate medication dosage
3. apply general terminology to medication use
4. describe anesthesia agent's actions
5. critique perioperative care for patients receiving general anesthesia
6. discuss postoperative medication selection factors
7. identify actions of drugs commonly used in the surgical setting
8. list perioperative medications
9. prepare solutions commonly used in the surgical setting*
10. manage solutions in the surgical setting*
11. manage medications in the surgical setting*
12. prepare preoperative information checklist*
13. list prescribed preoperative medications*
14. prepare medications commonly used in the surgical setting*
15. discuss preoperative medication selection factors
16. explain preoperative medication
17. list common anesthetic drugs
18. differentiate anesthesia types
19. discuss anesthesia agent selection factors
20. define common anesthetic drug differences
21. describe anesthesia patient factors
22. compare anesthesia methods
23. describe anesthetic agent's administration
24. address anesthesia monitoring
25. differentiate general anesthesia phases
26. explain circulator administration of anesthesia role
27. apply anesthesia administration principles
28. explain scrub administration anesthesia role
29. identify preoperative information
30. indicate local agent complications*
31. address general anesthesia complications
32. indicate regional agent complications*
33. indicate spinal agent complications*
34. identify side effects of drugs commonly used in the surgical setting

COURSE EVALUATION

3 exams (10%)	30%
1 final exam (10%)	10%
15 quizzes (4%)	<u>60%</u>
Total	100%

Chapter quizzes may be taken only once and are timed. If a student has issues with a quiz or final exam, the instructor must be contacted before the quiz or exam is due. Quizzes and/or the final exam will not be reset unless the instructor is contacted prior to the due date. If it is necessary for the instructor to re-set more than two quizzes, the student may be required to take the quizzes at the TCL testing center. Students may be required to take the Final Exam in the TCL testing center if re-setting is required. **Students will take all exams and the Final Exam in class on the Beaufort campus.**

For all online courses, students must complete an assignment designated by the instructor during the first week of classes. The instructor will drop the student from the course if the initial assignment is not completed.

Instructors will withdraw students from class when 90% attendance is not maintained. Attendance in an online course is defined by regular course access and by completion of assignments as required by the instructor. **Each student will be expected to access the web class at least once a week and complete weekly assignments on time. Additional access is encouraged and may be necessary for successful completion of classes.**

Failure to log in and complete assignments will result in the student being withdrawn from the course. The instructor will assign a grade of “W,” “WP,” or “WF” based upon the student’s academic standing as the last date of attendance, which is the last login. Students are responsible for any financial matters associated with an administrative withdrawal. If a student fails to email the instructor (using the my.tcl.edu email account) requesting to be dropped from the course and has not submitted the initial assignment required during the first week of class, the instructor will assign a “Never Attended” code in the student information system no later than ten calendar days after the first day of the class. Students who are dropped as a result of never attending the course are still responsible for all fees associated with the course.

See course website for additional expectations for student fulfillment of requirements.

Course Schedule

1. As posted on course BB9 site.
2. Complete the Quiz corresponding to each chapter by the assigned date.
3. Log on to course website at least twice per chapter, **and/or one (1) time per week.**
4. Check the Blackboard bulletin board at least **once** a week, the student should access more for information or clarification of definitions, answers to student's questions and any additional assignments.

- Three exams and the Final Exam will be taken in class on the Beaufort campus. The dates are of the exams and Final Exam are listed on the AHS 121 BB Quiz and Exam schedule posted on BB.

ADA STATEMENT

The Technical College of the Lowcountry provides access, equal opportunity and reasonable accommodation in its services, programs, activities, education and employment for individuals with disabilities. To request disability accommodation, contact the counselor for students with disabilities at (843) 525-8228 during the first ten business days of the academic term.

ATTENDANCE

The College's statement of policy indicates that students must attend **ninety percent (90%)** of total class hours or they will be in violation of the attendance policy.

- Students taking an online/internet class must sign in **and** communicate with the instructor within the first ten calendar days from the start of the semester to indicate attendance in the class. Students not attending class during the first ten calendar days from the start of the semester must be dropped from the class for **NOT ATTENDING**.

A copy of TCL's STATEMENT OF POLICY NUMBER: 3-1-307 CLASS ATTENDANCE (WITHDRAWAL) is on file in the Division Office and in the Learning Resources Center.

HAZARDOUS WEATHER

In case weather conditions are so severe that operation of the College may clearly pose a hardship on students and staff traveling to the College, notification of closing will be made through the following radio and television stations: WYKZ 98.7, WGCO 98.3, WGZO 103.1, WFXH 106.1, WWVW 106.9, WLOW 107.9, WGZR 104.9, WFXH 1130 AM, WLVH 101.1, WSOK 1230 AM, WAEV 97.3, WTOC TV, WTGS TV, WJWJ TV, and WSAV TV. Students, faculty and staff are highly encouraged to opt in to the Emergency Text Message Alert System. www.tcl.edu/textalert.asp

ACADEMIC MISCONDUCT

There is no tolerance at TCL for academic dishonesty and misconduct. The College expects all students to conduct themselves with dignity and to maintain high standards of responsible citizenship.

It is the student's responsibility to address any questions regarding what might constitute academic misconduct to the course instructor for further clarification.

The College adheres to the Student Code for the South Carolina Technical College System. Copies of the Student Code and Grievance Procedure are provided in the *TCL Student Handbook*, the Division Office, and the Learning Resources Center.

Health care professionals hold the public trust. Academic misconduct by health science students calls that trust into question and academic integrity is expected.

It is a fundamental requirement that any work presented by students will be their own. Examples of academic misconduct include (but are not limited to):

- copying the work of another student or allowing another student to copy working papers, printed output, electronic files, quizzes, tests, or assignments.

2. completing the work of another student or allowing another student to complete or contribute to working papers, printed output, electronic files, quizzes, tests, or assignments.
3. viewing another student's computer screen during a quiz or examinations.
4. talking or communicating with another student during a test.
5. violating procedures prescribed by the instructor to protect the integrity of a quiz, test, or assignment.
6. plagiarism in any form, including, but not limited to: copying/pasting from a website, textbook, previously submitted student work, or any instructor-prepared class material; obvious violation of any copyright-protected materials.
7. knowingly aiding a person involved in academic misconduct.
8. providing false information to staff and/or faculty.
9. entering an office unaccompanied by faculty or staff.
10. misuse of electronic devices.

GRADING POLICY

Grading scale	
90% - 100% A	W withdraw
82% - 89% B	WP withdraw with passing grade
75% - 81% C	WF withdraw with failing grade
70% - 74% D	I Incomplete
Below 70% F	

Grading Methodology. The final grade must be **75.00** or more in order to pass the course and progress in the program. Students absent from an examination or presentation will receive a "0" grade for the examination unless other arrangements are made with the individual instructor prior to the examination or presentation day or on the examination or presentation day before the test/presentation is scheduled to be given. It is the responsibility of the student to contact the appropriate instructor to arrange to make up the examination. Arrangements may be completed by telephone. If the instructor is not available, a message should be left on the instructor's voice mail AND with another member of the faculty or administrative assistant. The instructor will decide the time and method of make-up examinations on an individual basis. Messages sent by other students are unacceptable. The student is responsible for notifying the instructor for the reason of the absence. Grades are posted on Blackboard within one week of administration of tests and examinations.

COURSE POLICIES/PROCEDURES

1. It is clearly to the advantage of the student to attend class regularly. Test materials are weighted heavily in favor of lecture materials.
2. **All cell phones and pagers must be turned off during class (lecture and laboratory periods).** No pagers or phones are allowed in the clinical site. No exceptions are made to this rule.
3. Students are held accountable for content in the **Surgical Technology** program student handbook <http://www.tcl.edu/pdf/2007>
4. Instructors will excuse a student from class who disrupts the class.

5. No course grades are posted in public areas. Grades are available through WebAdvisor. The student must go to the college's website www.tcl.edu Select current student then select TCL WebAdvisor and find: (1) the directions and a demonstration on how to log in to WebAdvisor, and (2) how to access grades. For questions, contact the TCL Help Desk at 525-8344 or the Registrar's office at 525-8210.

Course Coordinator: JoLane Collins, CST, ATC, MA Ed., FAST
Surgical Technology Program Director
Office: Building 4, Room 202
Office Hours: By Appointment
Phone: 843-470-8415
Email: jcollins@tcl.edu