TECHNICAL COLLEGE
OF THE LOWCOUNTRY

Technical College of the Lowcountry
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SUR 101
Introduction to Surgical Technology
Fall 2019

Course Description
This course includes a study of the surgical environment, team concepts, aseptic technique, hospital organization, basic instrumentation and supplies, sterilization, principles of infection control, and wound healing. Prerequisites: Acceptance into the surgical technology program. Co-requisites: AHS 102, AHS 130, BIO 112, CPT 101 or CPT 170. (5 Cr.)

Course Schedule
Lecture: Monday and Wednesday 1:00pm-3:15pm
Lab: Monday, Tuesday, and Wednesday 9:00pm-12:00pm

Text and References
1. Surgical Technology Principles and Practice, 7th Edition, Elsevier/Saunders.
2. Alexander's Surgical Procedures, Rothrock and Alexander, 2012, Elsevier/Saunders
3. Surgical Instrumentation, An Interactive Approach, Nemitz, 2010
4. Pocket Guide to the Operating Room, 3rd Edition, Goldman.
5. Surgical Equipment and Supplies, 2nd Edition, Rutherford.

Course Outcomes
1. Identify the physical aspects of the operating room
2. Identify hospital departments and state their relations with surgery in providing quality patient care
3. Identify and demonstrate principles of communication and their importance in the surgical setting
4. Trace the historical development of surgery
5. Define and interpret ethical, moral, and legal responsibilities
6. Discuss the uniqueness of each patient's response to illness and hospitalization
7. Assess the physical, spiritual, and psychological needs of a patient
8. Demonstrate proper use of medical terminology in all forms of communication.
9. Identify surgical drugs
10. Divide drugs into classes
11. Identify the role of anesthesia
12. Name and classify anesthetic agents
13. Identify classes of wounds, complications, and the healing process
14. Understand the basic principles of electricity and their application in the operating room
15. Identify the different types of electrical equipment and their power sources in the operating room
16. Determine safety concerns related to electrical equipment and vaporized tissue plume
17. Learn electrical safety precautions
18. Apply electrical safety precautions
19. Apply electrical knowledge to safe patient care practices in the OR
20. Define terms related to physics

21. Apply the principles of physics to safe patient care practices in the OR
22. Discuss the basic concepts related to robotics
23. Describe the concepts of geometry that are used in the design of surgical robots
24. Identify the basic components and mechanisms of the robotic system
25. List the clinical applications of robotics in the OR
26. Apply the principles of robotics to safe patient care practices in the OR
27. Identify special populations/considerations for the geriatric patient, immunocompromised patient, mentally challenged patient, pediatric patient, physically impaired patient, and the trauma patient.

Course Goals

The following list of course goals will be addressed in the course. (*designates a CRUCIAL goal)

1. demonstrate medical terminology communication methods
2. employ electricity principles
3. interpret moral responsibilities
4. interpret legal responsibilities
5. discuss patient uniqueness
6. assess physical patient needs
7. define legal responsibilities
8. assess psychological patient needs
9. define moral responsibilities
10. identify surgical drugs
11. classify drugs
12. name anesthetic agents
13. classify anesthetic agents
14. illustrate wound classes
15. identify surgical complications
16. organize surgical instruments
17. assess spiritual patient needs
18. appreciate hospital management
19. organize surgical equipment
20. utilize theoretical knowledge
21. define key terms and concepts
22. differentiate hospital types
23. illustrate surgical technologist job description
24. interpret ethical responsibilities
25. recognize surgical team members*
26. recognize electrical equipment
27. consider hospital functions
28. distinguish operating room departments
29. distinguish physical plant aspects
30. distinguish hospital departments
31. discuss patient care
32. demonstrate communication principles
33. trace surgical history
34. define ethical responsibilities*
35. comprehend surgical team roles*
36. follow facility rules
37. organize surgical supplies
38. understand healing processes
39. implement appropriate conversation
40. discuss emotional control
41. incorporate preceptor guidance
42. predict surgeon needs
43. follow facility policies
44. check procedure cards*
45. apply sterile principles*
46. open sterile gown
47. open sterile gloves
48. practice scrubbing technique*
49. practice gowning technique
50. practice closed gloving technique

51. practice open gloving technique
52. label field medications
53. share workload
54. discuss robotics concepts
55. recognize power sources
56. determine electrical equipment safety concerns
57. determine vaporized tissue plume safety concerns
58. learn electrical safety precautions*
59. exercise electrical safety precautions
60. prioritize case preparations
61. apply physics principles
62. pull case instruments
63. describe surgical robots geometry concepts
64. identify robotic components and mechanisms
65. list robotics surgical applications
66. apply robotics principles
67. consider surgical procedure process
68. understand technical requirements
69. determine case needs
70. pull case equipment
71. exercise safe patient care practices*

Student Contributions

Classes are designed to employ a variety of teaching techniques. In order to maximize learning, required readings and Web enhanced sections are to be done prior to class. If a student is falling behind in clinical performance and/or academic achievement, it is imperative to seek immediate assistance from the instructor.

Course Evaluation

Unit Exams	40% (4-6 avg. of exams)
Quizzes	20% (4-6 avg. of quizzes)
Final Exam	20%
Lab Final	20%
	100%

Assessment tests are given to assist in the evaluation of individual student progress and to support student success. The dates for completion of these tests are posted on the course calendar. Students who do not achieve the required scores must meet with the course coordinator and/or clinical instructor and complete the prescribed remediation. The date for completion of remediation, when required, is due prior to the final exam. Failure to complete the testing or required remediation by the dates indicated above will result in a grade of **Incomplete** ("I") for the course and non-progression in the surgical technology curriculum. Students having difficulty with either the tests or remediation components of this course must speak personally with the course coordinator three (3) business days or more in advance of the published due dates. Refer to clinical notebook for detailed summary of Laboratory Competency Assessment requirements.

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 of total class hours or they will be in violation of the attendance policy.

1. Students not physically attending class during the first ten calendar days from the start of the semester must be dropped from the class for NOT ATTENDING.
2. 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 will be dropped from the class for NOT

ATTENDING. In addition, for any online course, or component of a course, students are required to log into the course (at least once per week) and complete the required assignments to meet attendance requirements.

3. Reinstatement requires the signature of the Division Dean.

   a. In the event it becomes necessary for a student to withdraw from the course ***OR*** *if a student stops attending class*, **it is the student's responsibility to initiate and complete the necessary paperwork.** Withdrawing from class may have consequences associated with financial aid and time to completion. Students are strongly encouraged to consult with Financial Aid prior to withdrawing from any class, particularly if the student is currently on a warning or probation status.

   b. When a student exceeds the allowed absences, the student is in violation of the attendance policy. The instructor MUST withdrawal the student with a grade of "W", "WP", or "WF" depending on the date the student exceeded the allowed absences and the student's progress up to the last date of attendance

      Or

   c. Under extenuating circumstances and at the discretion of the faculty member teaching the class, allow the student to continue in the class and make-up the work. This exception must be documented at the time the allowed absences are exceeded.

   d. Absences are counted from the first day of class. There are no "excused" absences. All absences are counted, regardless of the reason for the absence.

4. A student must take the final exam or be excused from the final exam in order to earn a non-withdrawal grade.
5. Students are expected to be in class *on time*. Arrival to class after the scheduled start time or leaving class prior to dismissal counts as a tardy. Three tardies and/or early departures are considered as one absence unless stated otherwise.
6. It is the student's responsibility to sign the roll/verify attendance with instructor upon entering the classroom. Failure to sign the roll/verify attendance results in a recorded absence. In the event of tardiness, it is the student's responsibility to insure that attendance is marked. **The student is responsible** for all material/ announcements presented, whether present or absent.
7. Students are **never** to send a message with another student in the event of an absence.
8. **Any pregnancy must be declared in writing to the program director**. See Student Handbook for additional information regarding pregnancy.
9. Continuity of classroom and laboratory (which includes clinical experiences) is essential to the student's progress in providing safe and competent patient care.
   Students are expected to use appropriate judgment for participating in clinical activities.
   To evaluate the student's knowledge and skills, it is necessary for the student to be present for all clinical experiences.
   If absence does occur, the designated clinical site and Surgical Technology instructor must be notified by telephone no later than 30 minutes prior to the start of the clinical experience. If the instructor cannot be reached, call the Health Science office and leave a message.
   The Division of Health Sciences telephone number is 843-525-8267.

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, WWVV 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. To sign up for text alert follow the prompts at: www.tcl.regroup.com/signup

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' 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.

All students are required to remove hats and ALL watches of any kind during exams and quizzes and place them in the front of the classroom with personal belongings and electronics.

During on campus examinations, only answers transferred and completed on Scantron sheets will be graded electronically to count towards the test score.

Clinical assignments, worksheets, and course reviews may be available on the Blackboard platform for student completion and review. If an online review is given, TCL utilizes the online test proctoring service ***Honorlock.*** Each student must meet the requirements for Honorlock to complete any online clinical assignments and/or course reviews.

- Honorlock Online Proctoring and Technology Requirements
  TCL uses an online test proctoring service called Honorlock to monitor some online tests as an alternative to in-person proctoring. Your instructor may elect to have some of your tests proctored using Honorlock. If so, you will need to make sure that you have access to the necessary equipment to take your online-proctored tests:
  - A computer with access to a high-speed Internet connection
  - The ability to install the Honorlock extension on Google Chrome.
  - A webcam and microphone. A functioning webcam and microphone are required to complete proctored online tests.
  - Microsoft Office. Microsoft Office can be downloaded free by accessing the Office 365 link in your TCL email account.

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):

1. 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.

Student Accountability/Clinical Education Rotations

Students in the ST program must be eligible to complete their clinical education rotations at any available clinical site. During clinical education rotations, each student is a representative of the TCL ST program. As such, students must comply with all TCL and ST program policies when participating in clinical education. In addition, when students are at a clinical site, every effort will be made to ensure that students receive a fair and equitable learning experience and students are responsible for abiding by all policies and procedures of that clinical site.

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

1. The final grade must be 75.00 or more in order to pass the course and progress in the program.
2. If a student is passing the didactic portion of the class but fails to achieve a "75" or higher in the lab practicum after two averaged attempts the student will receive an "F" in the class.
3. 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.
4. 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.
5. The instructor will decide the time and method of make-up examinations on an individual basis.
6. Messages sent by other students are unacceptable.
7. 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 area. No exceptions are made to this rule.

   ****All students are required to remove ALL watches of any kind during exams and quizzes.***
3. Students are held accountable for content in the **Surgical Technology** program student handbook http://www.tcl.edu/pdf/2018-2019
4. Any student disrupting class will be removed by the instructor.
5. No course grades are posted in public areas. Grades are available through TCL's Self-Serve. The student must go to the college's website www.tcl.edu select TCL Self-Serve/grades. For questions, contact the TCL Help Desk at 525-8344.

SYLLABUS SAFETY ADDENDUM

Purpose:
The purpose of this safety addendum is to provide each student with safety guidelines during an incident, emergency, or disaster at TCL. In addition, it provides students guidelines for lockdown procedures, evacuation procedures, and active shooter.

Definitions:
An incident is any event, potential or actual, that may affect normal operations but has no immediate health or life-threatening consideration or serious effect on the overall functional capacity of the College. An event of this nature should be reported to the Office of the Vice President for Administrative Services. Also, notify the off-site campus administrator if applicable.

An emergency is any incident, potential or actual, which may endanger life or health or which affects an entire building or buildings, and will disrupt the overall operations of the College. Outside emergency services will probably be required, as well as major efforts from campus support services. Major policy considerations and decisions will usually be required from the college administration during times of crises. An emergency should be reported immediately by directly using **911** if life or health/injury considerations exist and then to the Office of the President or Vice President for Administrative Services as quickly as possible. Also, notify the off-site campus administrator if applicable.

A disaster is any event or occurrence that has taken place and has seriously impaired or halted the operations of the College. In some cases, mass personnel casualties and severe property damage may be sustained. A coordinated effort of all campus-wide resources is required to effectively control the situation. Outside emergency services will be essential. In all cases of disaster, an Emergency Control Center will be activated, and the appropriate support and operational plans will be executed. The disaster should be immediately reported, first by calling **911** and then to the Office of the President or Vice President for Administrative Services. Also, notify the off-site campus administrator if applicable.

- **Types of Emergencies:**
- Hurricane
- Tornado

- Fire
- Biochemical or Radiation Spill
- Explosion/Bomb
- Downed Aircraft (crash which directly impacts campus operations)
- Utility Failures
- Violent or criminal behavior
- Psychological Crisis

Procedures

Active Shooter:

Run—Hide—Fight Video

http://www.fbi.gov/about-us/cirg/active-shooter-and-mass-casualty-incidents/run-hide-fight-video

Building Evacuation:

1. Building evacuations occur when an alarm sounds and/or upon notification by Security or the Emergency Director.
2. When the building evacuation alarm is activated during an emergency, individuals should exit according to the building evacuation plan and alert others to do the same.
3. Once outside, individuals should proceed to a clear area that is at least 500 feet away from the affected building. Streets, fire lanes, hydrant areas and walkways should be kept clear for emergency vehicles and personnel.
4. Individuals should not return to an evacuated building unless told to do so by Security or the Emergency Director.
5. Individuals should assist persons with disabilities in exiting the building. Elevators are reserved for disabled persons

Campus Evacuation:

1. A uniformed Security Guard, the Emergency Director, or an Emergency Resource Team member will announce evacuation of all or part of the campus grounds.
2. All persons (students and staff) are to immediately vacate the campus, or in the case of a partial evacuation relocate to another part of the campus grounds as directed.

Lockdown:

1. Clear the halls
2. Report to the nearest classroom/office
3. Assist those needing special assistance
4. Ensure classroom/office doors are closed and locked
5. Turn off lights
6. Stay away from doors and windows (out of the line of sight)
7. BE QUIET and follow instructor's directions
8. Silence cell phones
9. Wait for the "All Clear" before leaving

Course Coordinator: **Michael Lane, BS, CST, CSPDT**
Surgical Technology / Sterile Processing Instructor
Office Location: **Building. 4, Room 204**
Office Phone: **843-525-8296**
Office Hours: **As posted outside office door.**
Email: **mlane@tcl.edu**

Addendum to SUR 101 Syllabus

BIOPSYCHOSOCIAL NEEDS OF THE PATIENT

Objectives: The learner will:

1. Discuss the basic physical and biological needs required to sustain life.
2. Compare and contrast various spiritual and cultural needs of the surgical patient.
3. Demonstrate appropriate behavior in response to the needs manifested by the surgical patient.
4. Analyze and describe the potential psychological needs of the surgical patient and family.
5. List and describe potential sources of anxiety and fears of the surgical patient.
6. Identify and discuss the specific needs of the special population.

Content:

I. Maslow's Hierarchy of Needs
   - A. Physical and physiological needs
   - B. Psychological needs
   - C. Social needs
   - D. Spiritual needs
   - E. Cultural needs

II. Special population
   - A. Pediatrics
   - B. Geriatrics
   - C. Bariatrics
   - D. Immunocompromised patient
   - E. Diabetic patient
   - F. Pregnant patient
   - G. Physically challenged patient
   - H. Mentally challenged patient
     1. Disabilities (Down's syndrome, etc.)
     2. Post-traumatic stress disorder (PTSD)
   - I. Isolation patient
   - J. Trauma patient
   - K. Language barriers
   - L. Substance abuse patient.

DEATH AND DYING

Objective: The learner will:

1. Evaluate attitudes, beliefs and classifications regarding death and dying.
2. Compare and contrast responses to the process of death and various coping strategies and mechanisms.
3. Debate quality of life vs. quantity of life.
4. Trace the steps that are implemented when a patient death occurs in the operating room.

Content:

1. Death and Dying
   - A. Perceptions of death and dying
     1. Religious beliefs
     2. Cultural beliefs
     3. Ethnicity beliefs
     4. Attitudes of family members
     5. Attitudes of caregivers
   - B. Categories of causes of death
     1. Accidental
     2. Terminal

3. Prolonged (chronic)
4. Sudden

C. Definitions of death
1. Cardiac
2. Higher brain
3. Whole brain

D. Responses to loss/grief (Kubler-Ross)
1. Denial
2. Anger
3. Bargaining
4. Depression
5. Acceptance

E. Quality of life vs. quantity of life
1. Palliative procedures
2. Therapeutic procedures
3. Life-support systems
4. Life-sustaining therapy
5. Euthanasia
6. Right to die
7. Advance directives
   a. Living will
   b. Durable power of attorney
8. Do not resuscitate
   a. Medical
   b. Surgical

F. Death of a patient in the operating room
1. Notification of perioperative manager
2. Notification of family and significant others
3. Notification of chaplain/clergy
4. Preparation of the body for family viewing
5. Forensic issues and coroner's cases
6. Postmortem patient care/autopsy
7. State and federal law and hospital policy
8. Documentation

G. Coping strategies
1. Empathy
2. Grieving process
3. Share feelings with others
4. Fears
5. Team effort
6. Support groups for staff members
7. Support groups for bereaved families
8. Chaplain/clergy

H. Organ and tissue recovery and transplantation
1. Organ and tissue recovery
   a. Establishing death
   b. Consent for donation
   c. Recovery team
      Types of recovery
      Recovery on life support
      Recovery without life support
2. Transplantation

ATTIRE

Objectives: The learner will:
1. Recognize appropriate surgical attire.
2. Employ principles involved in donning surgical attire.

Content:

I. Basic OR attire
- A. Scrubs
- B. Hair covering
  1. Surgeon's cap
  2. Bouffant
  3. Surgical hood
- C. Shoes
- D. Shoe covers
- E. Warm-up jacket
- F. Mask

II. Accessory attire
- A. Lab coat/cover coat
- B. Personal protective equipment (PPE)
  1. Face protection
  2. Eye protection
     - a. Mask with shield
     - b. Glass types with side protection
     - c. Eye glass side inserts
     - d. Goggles
- C. Name tag/picture identification badge

III. Restrictions
- A. Body piercings
- B. Excessive perfume
- C. Full coverage of head/facial hair
- D. Hygiene
- E. Name tag/ID
  1. Confine when around neck
- F. No false eyelashes
- G. No jewelry
- H. No nail polish/artificial nails
- I. Tattoos

PREOPERATIVE PHYSICAL PREPARATION OF THE PATIENT

Objectives: The learner will:
1. Describe and perform the physical preparation and care that the surgical patient may receive prior to the surgical procedure.
2. Evaluate the items on the pre-operative patient checklist.

Content:

Patient physical preparation
- A. Bowel prep
- B. Hair removal
- C. Medications
- D. Preoperative hygiene

II. Patient checklist
- A. Baseline vital signs

B. Communication
C. Nail polish removal
D. NPO
E. Patient personal belongings
F. Prosthetics
G. Remove body piercings
H. Voiding/catheter

PATIENT IDENTIFICATION

Objectives: The learner will:

1. State the purpose of proper identification.
2. Demonstrate the identification process for a surgical patient admitted to the surgical suite.

Content:

Patient Identification

A. Purposes
   1. Correct patient
   2. Correct surgeon
   3. Correct procedure
   4. Correct location
      a. Side
      b. Site

B. Process
   1. Introduce self to patient
   2. Read patient ID band
   3. Compare patient ID band with surgery schedule
   4. Compare patient ID band with patient chart
   5. Request patient to verbally state:
      a. Name
      b. Date of birth
      c. Allergies
         (1) Food
         (2) Medications
         (3) Adhesives
         (4) Latex
         (5) Prep solutions
      d. Procedure side/site
      e. Surgeon
   6. Correct site surgery using time out
      a. Preoperative verification process
      b. Marking the surgical site
      c. Alternative for site marking
         (1) Patient wristband
         (2) Combative patient
      d. Process for emergency procedures
   7. Report discrepancies

TRANSPORTATION

Objectives: The learner will:

I. Identify methods of patient transportation.
2. Discuss the factors related to the family members and transportation of the patient.
3. Demonstrate the principles of safe transportation.

Content:

I. Methods
   A. Crib/isolate
   B. Self-ambulation
   C. Stretcher
   D. Wagon
   E. Ward bed
   F. Wheelchair
II. Safety features of transportation methods
   A. IV stand/pole
   B. 02 holder
   C. Safety straps
   D. Side rails
   E. Wheel locks
III. Patient transportation safety principles
   A. Comfort
   B. Drainage collection devices
   C. Head/feet first
   D. Patient self-protection
   E. Placement of patient chart
   F. Protect patient dignity
   G. Slowly and in full control
   H. Traction apparatus
   I. Ventilator
IV. Family considerations
   A. Explanations to family member(s)
      1. Preoperative holding
      2. Transferring patient to transportation device in hospital room
      3. Transporting patient
   B. Accompany patient to preoperative holding
      1. Elderly patient
      2. Infant/child
      3. Language barrier
      4. Law enforcement for prisoner
      5. Mentally disabled patient
      6. Physically disabled patient

REVIEW OF THE CHART

Objectives: The learner will:

1. Analyze laboratory reports in relationship to patient diagnosis and intervention.
2. Review the patient chart for completeness.

Content:

Review of the chart

A. Diagnostic tests and interventions
B. Documentation
C. Laboratory values
1. Allergies
2. Consents
(a) Anesthesia
(b) Operative
3. History and physical
4. Preoperative checklist
5. Surgeon's orders

SURGICAL CONSENT

Objectives: The learner will:

1. Analyze the procedure for obtaining informed surgical consent.
2. Analyze the legal concepts of obtaining informed surgical consent.

Content:

1. Purpose
A. Protection of health care facility
B. Protection of health care providers
C. Protection of patient
D. Protection of physician

II. Types
A. Medical
B. Surgical
1. Anesthesia administration
2. Blood administration
3. Operative procedure
4. Sterilization consent
C. Specific
1. Investigation/research device
2. Specimen disposal
3. Limb disposal

III. Informed Consent
A. Understandable language
B. No coercion/intimidation
C. Proposed surgical procedure or treatment
D. Potential complications
E. Potential risks of treatment
F. Alternative therapies
1. Potential risks

IV. Contents of consent form
A. Patient name
B. Physician name
C. Procedure to be performed
1. Lay terminology
2. Medical terminology
D. Legal signature
E. Witness signature
F. Date of signatures
G. Time of signature

V. Legal guidelines
- A. Legal age of consent
  - 1. Of legal age
  - 2. Emancipated minor
  - 3. Previous child-bearing status
- B. Legally competent
- C. Mentally competent
- D. Special concerns
  - 1. Alternate methods of obtaining consent
    - a. Administrative
    - b. Consulting physicians
    - c. E-mail
    - d. Emergent situations
    - e. Life-threatening circumstances
    - f. Minor without legal guardian
    - g. Telephone
  - 2. Appropriate translation (language)
  - 3. Court order
  - 4. Emergency consent
  - 5. Illiteracy
  - 6. Sensor

TRANSFER

Objectives: The learner will:
1. Discuss methods of patient transfer.
2. Identify equipment utilized for safe transfer of the surgical patient.
3. Employ the principles of body mechanics when transferring the surgical patient.

Content:
1. Transfer
   - **A.** Methods
     - 1. Self- transfer
     - 2. Assisted four-person transfer
   - **B.** Equipment
     - 1. Safety strap
     - 2. Transfer devices
       - a. Backboard
       - b. Bariatric patient transfer devices
       - c. Lift sheet
       - d. Roller board
       - e. Slider board
   - C. Principles
     - 1. Body mechanics
     - 2. Patient dignity
     - 3. Patient safety
       - a. OR table locked
       - b. Safety strap
       - c. Secure drains and tubes
       - d. Stretcher locked
       - e. Safety strap
       - f. Secure drains and tubes
       - g. Stretcher locked

POSITIONING

Objectives: The learner will:

1. Analyze the use, components and aides utilized to achieve various surgical positions.
2. Detail the sections and functions of the OR table.
3. Perform basic positioning.

Content:

- I. Factors
  - A. Anesthesia types
  - B. Surgeon's preference
  - C. Patient considerations
  - D. Physiological and anatomical consideration
  - E. Safety
  - F. Procedure/incision site
- II. OR Table
  - A. Function
  - B. Accessories
  - C. Additional supplies
- III. Positions
  - A. Supine (dorsal recumbent)
    - 1. Trendelenburg
    - 2. Reverse Trendelenburg
- IV. Fowler's (sitting)
- V. Semi-Fowler's (beach chair)
  - A. Lithotomy
- VI. Fracture table
  - A. Lateral
    - 1. Kidney
    - 2. Simms
  - B. Prone
    - 1. Knee-chest
    - 2. Kraske/Jackknife

URINARY CATHETERIZATION

Objectives: The learner will:

1. List the indications for urinary catheterization.
2. Discuss the basic considerations for urinary catheterization.
3. List the supplies required to perform urinary catheterization.
4. Demonstrate urinary catheterization.
5. Discuss the principles of monitoring urine output.

Content:

1. Indications
   - A. Control bleeding
   - B. Decompression of the bladder
   - C. Incontinence
   - D. Keep urine from contact with surgical wound
   - E. Monitor output
   - F. Prevent trauma

G. Promote healing
H. Provide visualization
I. Specimen collection
J. Urine retention

II. Considerations
A. Duration of catheterization
B. Patient modesty
C. Physician's order
D. Positioning and lighting
E. Size of catheter
F. Sterile technique

III. Supplies
A. Catheter set/tray
B. Catheter
1. Indwelling
2. Irrigating
3. Temporary
C. Urine collection devices

IV. Procedural steps
A. Preparation of supplies
B. Insertion
C. Securing
D. Positioning
1. Below hip level
2. Patient position changes

V. Monitoring urine output
A. Measurement
B. Assessment
C. Documentation

VI. Safety and patient risks
A. Patient positioning injuries
B. Trauma to bladder or urethra
C. Urinary tract infection (UTI)

SKIN PREPARATION

Objectives: The learner will:

1. Compare and contrast different types of skin preparations.
2. Compare and contrast different chemical agents used for skin preparation.
3. Describe the steps and rationales for surgical skin preparation.

Content:

I. Concepts
   - A. Purpose
   - B. Mechanical cleansing/bathing/showering
   - C. Hair removal
     1. Order
     2. Timing
     3. Area
     4. Techniques

II. Skin prep
   - A. Mechanics
     1. Pressure
     2. Friction
     3. Chemical antisepsis
   - B. Supplies
     1. Basins
     2. Disposable prep kit
     3. Applicators
        - a. Gauze
        - b. Sponges
        - c. Cotton tip swab
        - d. Impregnated applications
     4. Towel(s)
        - a. Drying
        - b. Absorb excess prep solution
     5. Sterile gloves
     6. Solutions
        - a. Chlorhexidine gluconate (CHG)
        - b. Iodine-based
        - c. 70% isopropyl alcohol
        - d. Hexachlorophene
        - e. Parachlorometaxylenol (PCMX)
   - C. Confirm patient allergies
   - D. Patient allergies
     1. Explain procedure
   - E. Procedural steps
     1. Incision to periphery
   - F. Special considerations
     1. Contaminated areas
     2. Skin grafts
        - a. Donor site
        - b. Recipient site

3. Eyes
    a. Eyebrows
    b. Eyelashes
    c. Orbit
4. Trauma
5. Cancer
6. Multiple procedures

G. Postoperative removal of solution

H. Documentation
1. Skin condition
    a. Preoperatively
    b. Postoperatively
2. Hair removal technique
3. Prep solutions
4. Person performing the prep

I. Safety concerns
1. Allergy
2. Burn from warm prep solution
3. Chemical burns
4. Flammability
5. Pooling of solution
6. Skin site mark visible

INSTRUMENTATION

Objectives: The learner will:
1. Identify the classifications, names, parts, materials, finishes and uses of basic surgical instrumentations.
2. Explain the relationship between instrument type and usage.
3. Apply knowledge of basic surgical instrumentation to specific surgical procedures.

Content:

I. Instruments
A. Classifications
    1. Accessory
    2. Aspirating and suctioning
    3. Clamping/occluding
    4. Cutting/dissecting
    5. Dilating
    6. Grasping/holding
    7. Micro instrumentation
    8. Probing
    9. Retracting/exposing
    10. Suturing
    11. Stapling
    12. Viewing
B. Parts
    1. Box locks
    2. Finger rings

3. Jaw
4. Ratchet
5. Shank
6. Tip

C. Materials
1. Alloys
2. Stainless steel
3. Titanium

D. Finishes
1. Bright, polished
2. Ebonized, black chromium
3. Satin, dulled

HAND HYGIENE AND SURGICAL SCRUB

Objectives: The learner will:

1. Demonstrate the steps of a hand wash.
2. Identify the preliminary preparations for the surgical scrub.
3. Demonstrate the steps of the surgical scrub.
4. Employ sterile technique during the surgical scrub.

Content:

I. Medical hand wash
- A. Gather needed supplies
- B. Critical elements
  1. Remove jewelry
  2. Wet wrists and hands
  3. Keep fingers pointed downwards/hands lower than elbows
  4. Avoid contact with non-sterile surfaces
  5. Wash to 2” above wrists
  6. Do not shake water from hands
  7. Dry hands from fingers to wrists
  8. Follow healthcare facility policy

II. Surgical scrub
- A. Preliminary preparations
  1. Open sterile gown and gloves
     - a. Separate surface from sterile set-up
  2. Gather appropriate scrub supplies
  3. Remove jewelry
  4. Don personal protective equipment
  5. Inspect integrity of nails and skin
- B. Surgical scrub
  1. Antiseptic agents
  2. Methods
     - a. Timed method
     - b. Counted brush-stroke method
     - c. Waterless/brushless methods
  3. Critical elements
     - a. Scrub fingertips to 2” above elbow
     - b. Keep fingertips above elbows

c. Avoid contact with non-sterile surfaces
d. Brush method utilize four planes
e. Follow healthcare facility policies

GOWNING AND GLOVING

Objectives: The learner will:

1. Employ sterile technique when gowning and gloving self and when assisting other team members.

Content:

I. Gowning
   A. Drying hands and arms
   B. Gowning
      1. Self-gowning
II. Gloving
   A. Closed gloving
   B. Double gloving
III. Assist team members
IV. Removal of gown and gloves
   A. For replacement during procedure
   B. Completion of procedure
V. Other gloving techniques
   A. Open gloving without gown
   B. Replacing contaminated glove(s) (best-to-least optimal technique 1-4)
      1. Replace gown and gloves
      2. Circulator removes glove; other sterile team member re-gloves
      3. Circulator removes glove; surgical technologist re-gloves using Open technique
      4. Surgical technologist dons gloves over contaminated glove
   C. Sterile sleeve

SURGICAL COUNTS

Objectives: The learner will:

1. Discuss the purposes and legal responsibilities of counts.
2. Describe the techniques used to prevent foreign body retention.
3. Discuss when counts should be performed.
4. Describe the method for counting.
5. Demonstrate the procedure for counting instruments, sponges, sharps and other items on the field.

Content:

I. Counting
   A. Purpose
   B. Legal responsibility
      1. Documentation
      2. Incorrect counts
      3. Omitted counts
II. Concepts
   A. Technique

1. Concurrent counting
    a. Two-person verification
    b. Visual/audible counting
2. Order of counts
    a. Field/Mayo stand/back table/off-the-field

B. Timing
1. Initial count
2. Closure of organ
3. Closure of body cavity
4. Closure of subcutaneous or skin
5. Additional counts
    a. Change of staff
    b. Addition of subsequent items

C. Methods
1. Sponge
2. Sharps
3. Instruments
4. Accessories

D. Procedure for handling an incorrect count
1. Preoperatively
2. Intraoperatively

E. Electronic methods of tracking counts
1. Bar coding
2. Radio-frequency identification

DRAPING

Objectives: The learner will:

1. Describe various types of draping material used in surgical procedures.
2. Select the appropriate drapes for specific positions and surgical procedures.
3. Demonstrate the aseptic principles of draping the patient, equipment, and furniture.

Content:

I. Materials
A. Characteristics
B. Types
1. Woven
2. Non-woven
3. Plastic

II. Types of drapes
A. Towels
B. Fenestrated
C. Non-fenestrated
D. Adhesive
1. Barrier
2. Fire prevention strategy
E. Specialty

III. Draping the patient for surgical procedures
A. General Surgery

1. Towel placement and fixation
2. Handling and passing of drapes
    a. Cuffing
    b. Placement
3. Recognition and correction of contamination

B. Specialty

IV. Draping OR furniture

A. Tables

B. Ring stands

C. Mayo stand

V. Draping ancillary equipment