

Virginia Western Community College

SUR 263

Introduction to Surgical Procedures

Prerequisites

SUR 250

VCCS Course Description

Presents surgical procedures and the role of the Surgical Technologist. Addresses surgical specialties such as General Surgery, Obstetric and Gynecologic, Genitourinary, Orthopedics, Pediatrics and Minimally Invasive Surgical Procedures. Presents pathophysiology, surgical anatomy, instrumentation, and procedural steps. Reinforced at the clinical site.

Semester Credits: 2

Lecture Hours: 2

Required Materials

Textbook

Title	Author	Edition
Surgical Technology for the Surgical Technologist: A Positive Care Approach Textbook + Study Guide Required ISBN: 9780357625736	Frey, Kevin B.	6th
LANGE Q&A Surgical Technology Examination ISBN: 978-125958811-2	Sherman, Carolan, Chmielewski, Mary	8th
Pearson's Surgical Technology Exam Review ISBN: 978-0-13-521342-1	Rogers, Emily M., McGuiness Leary, Ann	4th
VWCC Surgical Technology Program Student Handbook	VWCC AAS in ST	

Other Required Materials:

VCCS COURSE OUTCOMES

VWCC AND DISCIPLINE SPECIFIC OUTCOMES

- Identify key anatomical features of the nervous system and elements of pediatric airways. Describe the basic physiology of the autonomic nervous system, basic

diagnostic procedures, and key elements of case planning for pediatric surgery as well as common surgical procedures of the nervous system. Compare and contrast factors that differentiate between pediatric and adult patients and discuss the developmental stages per age for pediatric patients. Discuss common congenital anomalies and surgical pathology for pediatric patients. Review specific elements related to Pediatric Surgery for case planning such as instrumentation, surgical approach, common medications, suture, dressings, and duties related to the Surgical Technologist role.

- Identify key anatomical structures of the genitourinary system, common diagnostic tests and procedures of the genitourinary system, specific elements of case planning, common pathology and genitourinary procedures. Discuss difference between transurethral, open and minimally invasive surgical approach for genitourinary procedures. Discuss female incontinence and surgical treatment options. Review specific elements related to Genitourinary Surgery for case planning such as instrumentation, surgical approach, common medications, suture, dressings, and duties related to the Surgical Technologist role.
- Identify the anatomical regions and structures of the abdominal wall while discussing specific elements of case planning for general surgery procedures including hernias, thyroid, gastrointestinal procedures, bowel techniques, anastomosis, liver, biliary system, pancreas, spleen, and breast surgery. Review specific elements related to General Surgery for case planning such as instrumentation, surgical approach, suture, common medication, dressings, and duties related to the Surgical Technologist role. Compare and contrast between key elements of open versus laparoscopic surgical procedures as related to General Surgery.
- Identify key anatomical structures of the female reproductive system, common diagnostic procedures of the same, specific elements of case planning for GYN and obstetrical surgery, list and describe common gynecological and obstetrical procedures. Compare and contrast between key elements of open versus laparoscopic surgical procedures as related to Gynecological Surgery. Review specific elements related to Gynecological Surgery for case planning such as instrumentation, surgical approach, common medications, suture, dressings, and duties related to the Surgical Technologist role. Discuss the needs of the pregnant patient and compare/contrast vaginal versus cesarean delivery.
- Identify major bones of the body, discuss specific types of instruments used in orthopedic surgery, while explaining the uses of common orthopedic implants and hardware, possess the ability to discuss basic techniques used in fracture reduction and fixation, and joint reconstruction. Discuss the difference between open and closed reduction, as well as open and arthroscopic surgical approaches. Discuss specific elements of case planning for orthopedic surgical procedures. Review specific elements related to Pediatric Surgery for case planning such as instrumentation, surgical approach, common medications, suture, pneumatic tourniquet, use of intraoperative radiography, dressings, and duties related to the Surgical Technologist role.

- Identify key aspects of Minimally Invasive Surgical Approaches as related to procedures of General, Gynecological, Pediatric and Urological surgery. Discuss variations in and pros and cons of MIS surgery, and how it differs from open approaches. Discuss difference in entry and closure of body cavity, and surgical procedures related to MIS. Discuss possible complications of the patient undergoing laparoscopic or robotic surgery. Discuss aspects of robotic surgery.
- Introduce and use appropriate medical terminology and word parts as it relates directly to surgical procedures covered in course.

VWCC AND DISCIPLINE SPECIFIC TOPICAL DESCRIPTIONS

Major Topics to be Included:

- **General Surgery:** Anatomy review, surgical pathology, surgical instrumentation and specialty equipment, incisions, case planning, surgical techniques, role of CST
 - Laparotomy, Laparoscopic Nissen Fundoplication, Gastrostomy, Total Gastrectomy, Colon Resection, Laparoscopic versus Open Appendectomy, Hemorrhoidectomy, Liver Resection, Open vs. Laparoscopic Cholecystectomy, Pancreatectomy vs. Whipple, Open vs. Lap. Splenectomy, breast biopsy, sentinel node biopsy, Modified Radical Mastectomy, Thyroidectomy; **Hernias:** Open vs. Lap. Inguinal, ventral/incisional, Umbilical, other hernia types
- **Minimally Invasive Surgery:** Discuss anatomical considerations, compare/contrast MIS versus open approach, discuss pro's and con's of MIS, MIS in general, GYN and urology procedures, special equipment and instrumentation, robotics in surgery, surgical patient candidate, robotic surgery
- **Obstetric and Gynecological Surgery:** Anatomy review, surgical pathology, surgical instrumentation and specialty equipment, incisions, vaginal versus abdominal approach case planning, surgical techniques, medication related to OBGYN, role of CST, care of the pregnant patient
 - Cervical Cerclage, Cesarean Section, Tubal Sterilization, Tuboplasty, Ectopic Pregnancy Resection, Diagnostic Laparoscopy, Hysteroscopy, Bartholin's Gland Cyst, Vulvectomy, Labiaplasty, D&C, Endometrial Ablation, Oophorectomy, Salpingectomy, Myomectomy, Total Abdominal Hysterectomy, Vaginal Hysterectomy, Lap. Hysterectomy, Robotic Assisted Laparoscopic Hysterectomy, Radical Hysterectomy, Pelvic Exenteration, A & P Repair, D&E
- **Genitourinary Surgery:** Introduction to Genitourinary surgery, relevant anatomy review, case planning and considerations, instrumentation, cystoscopy suite
 - Ureteroscopy, Cystoscopy (TURBT), Cystectomy, TVT Sling, Prostate Seeding, Nephrectomy, Wilm's Tumor excision (Adrenalectomy), Kidney Transplant, Prostatectomy: TURP, Robotic Laparoscopic, Suprapubic Open; Circumcision, penile implant insertion, Penectomy, Hydrocelectomy, Orchiopexy, Orchiectomy, Epispadias/ Hypospadias repair, Gender reassignment procedures
- **Orthopedic Surgery:** Introduction to orthopedic surgery, anatomy review, Pathology, types of fractures, case preparation, casting, pneumatic tourniquet, open versus

closed approach, positioning, instrumentation, complications, equipment, medications related to orthopedics, traction, patient positioning, etc.

- Shoulder Arthroscopy, Open vs. Arthroscopic Bankart, Open vs. Arthroscopic Acromioplasty, Shoulder Arthroplasty, External Fixator – radius, ORIF Radius, ORIF Hip Fracture, Total Hip Arthroplasty, Femoral Shaft Fracture Nailing, Knee Arthroscopy, ACL Repair, Above Knee Amputation, Below Knee Amputation, Total Knee Arthroplasty, Triple Arthrodesis (foot & ankle), Achilles' Tendon Repair, Bunionectomy
- **Pediatric Surgery:** Physiological and Anatomical Considerations, Pathology, Patient Population, Psychosocial Care, role of the CST
 - **Case Planning** – specialty instrumentation and equipment, hypothermia versus normothermia, common medications, patient positioning
 - Repair of Cleft Lip; Atresia: Choanal & Esophageal; Pyloromyotomy; Omphalocele; Orchiopexy; Repair of Bladder Exstrophy/Epispadias; Pectus Excavatum Repair; Wilms Tumor Removal; Repair of Myelomeningocele; Syndactyly and Polydactyly Corrections

[TITLE IX STATEMENT](#)

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