

## Course Number and Title: SGT 220 Surgical Technology III

**Campus Location:**

Dover

**Effective Date:**

2021-51

**Prerequisite:**

SGT 200, SGT 202, SGT 203, SGT 210 or concurrent, SGT 213 or concurrent

**Co-Requisites:**

SGT 223

**Course Credits and Hours:**

4.00 credits

4.00 lecture hours/week

0.00 lab hours/week

**Course Description:**

This course covers the responsibilities of the surgical technologist in preoperative, intraoperative, and postoperative case management for procedures in the specialty areas of oral and maxillofacial, plastic and reconstructive, genitourinary, orthopedic, peripheral vascular, and cardiothoracic surgery. Topics include surgical procedures, steps, and special equipment as well as considerations for the surgical technologist unique to each specialty.

**Required Text(s):**

Obtain current textbook information by viewing the [campus bookstore - https://www.dtcc.edu/bookstores](https://www.dtcc.edu/bookstores) online or visit a campus bookstore. Check your course schedule for the course number and section.

**Additional Materials:**

None

**Schedule Type:**

Classroom Course

**Disclaimer:**

None

**Core Course Performance Objectives (CCPOs):**

1. Describe the function, assembly, and use of specialty surgical equipment. (CCC 2, 6; PGC 2, 4, 5)
2. Describe surgical procedures for managing surgically treatable diseases and disorders in the specialty areas of oral and maxillofacial, plastic and reconstructive, genitourinary, orthopedic, peripheral vascular, and cardiothoracic surgery. (CCC 1, 2, 3, 4, 5, 6; PGC 1, 2, 3, 4, 5)

See Core Curriculum Competencies and Program Graduate Competencies at the end of the syllabus. CCPOs are linked to every competency they develop.

**Measurable Objectives (MPOs):**

Upon completion of this course, the student will:

1. Describe the function, assembly, and use of specialty surgical equipment.
  1. Explain how to set up equipment applying the principles of electricity and electrical flow to maintain patient safety.
  2. Identify special equipment unique to each specialty.
  3. Describe how to setup, test, operate, breakdown, and decontaminate the equipment.
2. Describe surgical procedures for managing surgically treatable diseases and disorders in the specialty areas of oral and maxillofacial, plastic and reconstructive, genitourinary, orthopedic, peripheral vascular, and cardiothoracic surgery.
  1. Discuss factors that are unique to the oral and maxillofacial surgical procedures: maxillary and mandibular fractures – open reduction internal fixation (ORIF) and Arch Bar application, cleft repair – lip and palate; odontectomy; and maxillary fractures – Laforte I, II, and III, and ORIF orbital fractures.
  2. Discuss factors that are unique to the plastic and reconstructive surgical procedures: Blepharoplasty, brow lift, cheiloplasty/palatoplasty, malar implants, malar implants, otoplasty, rhinoplasty, rhytidectomy, breast augmentation, mastopexy, mammoplasty – nipple reconstruction and transverse rectus abdominis myocutaneous (TRAM) flap, abdominoplasty, suction lipectomy, superficial lesion/neoplasm, skin graft – full thickness and split thickness, microvascularpedicle graft, scar revision, Dupuytren's Contracture, traumatic injury repairs, radial dysplasia, release of polydactyly, and release of syndactyly.
  3. Discuss factors that are unique to the genitourinary surgical procedures: nephrectomy, kidney transplant, Wilm's tumor excision, ureteroscopy, ureteropyelithotomy, transurethral resection of bladder tumor (TUR-BT), cystectomy with creation of illeal conduit, suspension (TransVaginal Tape (TVT)/Sling), transurethral resection of the prostate (TURP), and Prostatectomy – laparoscopic and suprapubic, prostate seeding, circumcision, epispadias repair, hypospadias repair, penile implant insertion, penectomy, hydrocelectomy, orchiopexy, and orchiectomy.
  4. Discuss factors that are unique to the orthopedic surgical procedures: acromioplasty (open and arthroscopic), Bankart procedure (open and arthroscopic), shoulder – total arthroplasty, radius ORIF, radius external fixator, hip – total arthroplasty, hip – ORIF, femur – femoral shaft fracture, knee – arthroscopy, anterior cruciate ligament (ACL) repair, amputation - above the knee, amputation – below the knee, knee total arthroplasty, Achilles tendon repair, triple arthrodesis, and bunionectomy.
  5. Discuss factors that are unique to the peripheral vascular surgical procedures: abdominal aortic aneurysm with graft insertion, angioplasty – endograft placement, angioplasty – endostent insertion, angiostomy, arteriovenous (AV) shunts and bypass – (aortofemoral bypass, arteriovenous fistula and shunt, femoralpopliteal bypass), carotid endarterectomy, embolectomy, vena cava device, vein ligation and stripping and venous access device.
  6. Discuss factors that are unique to the cardiothoracic surgical procedures: bronchoscopy, mediastinoscopy – lymph node biopsy, thoracoscopy, thoracotomy – (lobectomy, pneumonectomy, decortification of the lung, lung transplant, pectus excavation repair, pulmonary embolism), aortic/mitral valve replacement, atrial/ventricular septal defect repair, closure of patent ductus arteriosus, coronary artery bypass graft – (intra-aortic balloon pump, minimally invasive direct, off-pump, ventricular assist device insertion), heart transplant, repair coarctation of the aorta, Tetralogy of Fallot repair, and ventricular aneurysm repair.
  7. List the supplies, equipment, and instrumentation needed for each specialty procedure.
  8. Discuss the perioperative care of the patient for each specialty procedure, including positioning.
  9. Describe the preparation, insertion, and anchoring of various catheters and drains.
  10. Describe the etiology, clinical manifestations, clinical and pharmacologic interventions, and preventative measures of emergency procedures that may be carried out in the operating room (OR) setting including: malignant hyperthermia, cardiac arrest, hemolytic reaction, anaphylactic reaction, and hemorrhage.

**Evaluation Criteria/Policies:**

The grade will be determined using the Delaware Tech grading system:

90	-	100	=	A
80	-	89	=	B
70	-	79	=	C
0	-	69	=	F

Students should refer to the [Student Handbook - https://www.dtcc.edu/handbook](https://www.dtcc.edu/handbook) for information on the Academic Standing Policy, the Academic Integrity Policy, Student Rights and Responsibilities, and other policies relevant to their academic progress.

**Final Course Grade:**

Calculated using the following weighted average

Evaluation Measure	Percentage of final grade
Exams (3 equally weighted) (Summative)	45%
Final Exam (Summative)	45%
Assignments (Formative)	10%
TOTAL	100%

**Core Curriculum Competencies (CCCs are the competencies every graduate will develop):**

1. Apply clear and effective communication skills.
2. Use critical thinking to solve problems.
3. Collaborate to achieve a common goal.
4. Demonstrate professional and ethical conduct.
5. Use information literacy for effective vocational and/or academic research.
6. Apply quantitative reasoning and/or scientific inquiry to solve practical problems.

**Program Graduate Competencies (PGCs are the competencies every graduate will develop specific to his or her major):**

1. Differentiate the roles and responsibilities of all surgical team members.
2. Demonstrate the ability to anticipate the needs of surgical patients by properly preparing the operating room suite, equipment, and instrumentation required for surgical interventions.
3. Demonstrate a professional demeanor when communicating with patients and fellow team members.
4. Synthesize a surgical conscience.
5. Participate as an effective and clinically proficient member of the surgical team throughout the perioperative, intraoperative and immediate postoperative periods.

**Disabilities Support Statement:**

The College is committed to providing reasonable accommodations for students with disabilities. Students are encouraged to schedule an appointment with the campus Disabilities Support Counselor to request an accommodation needed due to a disability. A listing of campus Disabilities Support Counselors and contact information can be found at the [disabilities services - https://www.dtcc.edu/disabilitysupport](https://www.dtcc.edu/disabilitysupport) web page or visit the campus Advising Center.