

**ST-3000
Surgical Technician
Clinical Handbook
& Clinical
Requirements**



MedCerts
A Stride Company

Program Overview:

Surgical Technologists, also called operating room technicians, work alongside, and assist surgeons, nurses, and other members of the healthcare team throughout a surgical operation. The role of the surgical technician is incredibly important because they ensure a sterile and organized environment.

Surgical Techs have the unique opportunity to interact with patients prior to (pre), during (intra), and after (post) surgical procedures. The role of the surgical technician is to prepare operating rooms, arrange equipment, prepare patients, and assist doctors during surgeries. Before surgery, a tech will assemble the necessary surgical equipment and ensure that all devices are in working order. Techs prepare patients for surgery by positioning, draping and washing and disinfecting the incision area.

During an operation, surgical technicians will pass the sterile instruments and supplies to surgeons. They maintain asepsis during a surgery, anticipating the surgeons needs while remaining attentive to all aspects of the surgical procedure to ensure a safe environment for the patient. They might hold retractors or set up robotic surgical equipment. After surgery, techs often dress the incision site, transport patients to recovery rooms and restock the operating room with supplies and equipment.

Exam Details:

Target Certification: Tech in Surgery – Certified (TS-C)

Professionals who earn the NCCT (National Center for Competency Testing) designation have the clinical skills and knowledge for maintaining asepsis during surgery, anticipating the surgeon's needs, and remaining attentive to all aspects of the surgical procedure to ensure safe environment for the patient.

Issuing Authority: NCCT

Accreditation: Accredited by NCCA (National Commission for Certifying Agencies)

Exam Certification: TS-C (Tech in Surgery-Certified)

Exam Questions: 175

Minimum Passing Score: 70%

Exam Time: 4 Hours

Testing Site: Home Remote Proctored

Renewal: Annually with 14 CE's required

Clinical Details and Clinical Case Documentation:

Case documentation requires a minimum of 125 surgical cases including a minimum of 50 scrubs in general surgery; a minimum of 20 scrubs in orthopedic surgery and a minimum of 55 scrubs in at least 2 (two) of the following areas:

- Gynecology
- Genitourinary
- Cardiovascular
- Neurosurgery
- Obstetrics
- Thoracic
- Peripheral Vascular
- Ophthalmology
- Otorhinolaryngology
- Plastic/Reconstructive
- Others (if other)

*Within 2 years, the certified technician is required to complete case documentation and report to **NCCT** [National Center for Competency Testing \(ncctinc.com\)](http://ncctinc.com)

MedCerts Assistance:

The MedCerts Career Services team is here to help, but *students are responsible for securing their own clinical sites to complete their certification requirements.*

Step 1: Create a list of potential clinical sites in your area. Clinical requirements can be completed at one of many different medical locations, such as, but not limited to:

- *Emergency Rooms*

- *Outpatient Surgery Centers*
- *Cardiology, Neurosurgery or Patient Surgery Facilities*
- *Hospitals and Ambulatory Settings*

Step 2: Contact potential sites and inquire about clinical opportunities. You may have the most success reaching the supervisor or manager if you call the site, but you can also try to send an email (see sample email language below).

Step 3: If the site is willing to host you, check to see if they require MedCerts sponsorship. Be sure to gather contact information for the site supervisor or manager (Name, email, phone number, address of site).

Step 4: Once you have secured a site, please complete the [Clinical Site Information Form](#).

Step 5: Complete any documents required by the clinical site and confirm your start date. You may be required to have a criminal background check and complete a drug screening assessment. Please see the section in this handbook below on “Criminal Background Check, Drug and Other Screenings.”

Step 6: Document your requirements within the NCCT website. You may contact Jason Priest (jpriest@medcerts.com) Clinical Coordinator, for more details and/or to assist with sponsorship.

Identifying and Securing a Clinical Site: Clinical site opportunities can be either unpaid volunteer positions or paid employment positions, depending on the site and their needs. Some healthcare facilities may prefer to hire you and give you the supervision you need to complete your clinical requirements upon employment.

Recommendations:

The following are some recommendations from the MedCerts Career Services team that you can utilize as you begin the process of locating and securing your clinical site. Some strategies for identifying appropriate clinical sites include:

- Search online job websites (Ex: Indeed, ZipRecruiter, Linked In, NHA.com) to find sites that may offer paid positions that would allow you to complete your clinical requirements.
- Network with friends and family to see if they have any connections to healthcare facilities.
- Healthcare professionals have many connections to a variety of facilities, and they may be able to refer you to their colleagues.
- Utilize social networking platforms (social media, Twitter, Facebook) to let people know that you're looking for a clinical site to complete your hands-on certification requirements.
- Consider volunteering or job shadowing at a hospital or clinic while going through your program, to build relationships there and make some key connections. (Remember that job shadowing does not count towards completing your clinical log as the requirement is to be done by the student on live persons.)

Approaching Employers:

- Be well-prepared and treat this like you would a job search.
- Develop and polish your resume. Writing a resume may sound daunting, but these [Tips for Writing a Standout Resume](#) will help you to get started. You can also use this [Resume Rubric](#) (checklist) to make sure you've covered all the bases.
- Identify the appropriate department and person to approach, which may include the education department, volunteer department, or someone in human resources.
- Prepare customized cover letters for each site you approach. A cover letter is a way to briefly introduce yourself to the employer and share your goals. The

letter is a chance to demonstrate your professionalism and clarify your clinical requirements.

- Email or hand deliver your resume and cover letter.
- Communicate promptly and professionally with the site.
- Dress professionally for the meeting or interview (Look your best!)

If the site requires a letter of enrollment, please utilize the letter attached to this handbook (below).

Dear Preceptor/Trainer:

Thank you for your willingness and consideration to serve as a preceptor/trainer for one of MedCerts Surgical Technician students. The faculty appreciates your interest in being an integral part in the education of future Surgical Technicians. We recognize and appreciate the time it takes from your already busy schedule to precept and train our students. The purpose of this letter and handbook is to provide you with information about the Surgical Technician requirements. It includes guidelines for the preceptor's role regarding teaching, supervising and evaluating students. The expected clinical experiences for students, follow the recommendations and requirements of the NCCT. If you have any questions or concerns, please contact us. Should you have any questions regarding requirements or for clinical placements please contact our clinical coordinator at Jpriet@MedCerts.com. We will get back to you right away.

Thank you for your time and consideration.

Best Regards,

Jason Priest

Clinical Externship Coordinator

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MedCerts' Professional Standards & Policies

Students are expected to adhere to MedCerts' professional standards as set forth in this section, as well as the standards set forth by the clinical site, at all times throughout the duration of a student's time at the clinical site. Students found violating these standards may be subject to disciplinary action to the severity of termination from the clinical site and dismissal from their MedCerts program.

MedCerts has established the following Professional Standards to ensure the success of the student and the continued professional relationship between MedCerts and the clinical site. Students receiving MedCerts sponsorship will be required to sign the MedCerts' Sponsorship Agreement, indicating the student understands and agrees to meet all Professional Standards set forth below.

Attendance: Take every precaution to avoid any absences from your Clinical Site position, since dependability is a professional expectation of all healthcare facilities. If you are unable to attend all scheduled shifts due to illness or emergency, please notify your clinical site's manager or supervisor as soon as possible. Clinical site leave must be approved based on the policies set forth by the clinical site.

Confidentiality: Students are required to maintain confidentiality of patient information in accordance with HIPAA (Health Insurance Portability and Accountability).

Professional Dress Code: Appropriate dress standards have been established to present and maintain a professional appearance to patients, visitors, and the healthcare team. The standards allow comfortable performance of duties and promotion of safety and infection control.

- ID badge if required, must be worn at all times as required by the clinical site (i.e., above the waist with name visible).

- Hair must have a clean and neat appearance with shoulder-length hair pulled back. Facial hair must be clean, neat, and well groomed.
- Headgear, religious or culture in nature, may be worn.
- Jewelry must be appropriate and professional, and not present a safety hazard when working with patients or equipment. Students must be prepared to remove jewelry and/or piercings as required by the clinical site.
- Tattoos must be covered as required by the clinical site.
- Attire as required by the clinical site, i.e. clean and ironed scrubs or uniforms and OSHA-compliant shoes. No denim, short skirts, sweatshirts, low necklines, tank tops, halter tops or T-shirts with advertising or offensive graphics, sweatpants, jogging pants, leggings, or shorts (or any other attire deemed inappropriate by site).
- Fragrances, such as perfume or cologne, may cause allergic reactions in others and may not be worn.
- Fingernails must be neat, clean, and trimmed as not to extend beyond the tips of the fingers; no artificial nails are allowed.

Criminal Background Checks, Drug & Other Screenings Policy

Some clinical sites may require screening prior to placement. **Students are responsible for all required screening(s) and applicable fee(s).** The requirements and types of screening are dependent on the requirements of the site. Potential fees, which vary per state, include but are not limited to, a background check, drug screening, Basic Life Support (BLS) for Healthcare Providers, (CPR) certification, TB tests, and required immunizations. Students should speak with their clinical site for more information about potential screening(s) and applicable fee(s).

MedCerts does not perform criminal background checks, nor do we test students for illicit drug use. Please be advised that the student's drug, criminal, or immunization status may prevent future employment as a healthcare or IT (Information Technology) professional. Clinical sites, employers, and State Boards, or other regulatory boards have regulations about drug use and criminal

backgrounds. Regulatory boards, clinical sites, employers, and other organizations that may require these screenings for placement, and adverse results may prohibit you from completing the clinical requirements.

The student understands that MedCerts does not hold any control over the drug, immunization, criminal, or background screening processes or policies held by any organization outside of MedCerts.

The Role of a Preceptor/Trainer:

A preceptor/Trainer guides the student's clinical learning experience while acting as a role model and supports Surgical Technician's role through facilitating student autonomy and promoting self-confidence leading to clinical competency for safe and effective practice.

- Directs overall progressive expectations and goals for the clinical experience
- Identifies and discusses learner needs to meet course objectives required by NCCT
- Assesses the nature of the patient care encounters to enable the student to meet their progressive expectations and requires clinical experiences
- Utilizes appropriate teaching methods to help the student meet their learning objectives
- Evaluates whether the student objectives have been achieved
- Provides ongoing feedback to the student
- Demonstrates attitudes and qualities consistent with the ethics of the health professions

Expectations of Preceptors/Trainers:

- Review course description, outcomes, and progressive clinical expectations to structure the experience.
- Assist the student to complete clinical requirements from NCCT and evaluations.
- Orient the student to the clinical site and staff.

- Advise the student of expectations with respect to communication, attire, documentation, and patient visits, teaching, and disposition.
- May only work with one student in the clinical setting on a given day (1:1 ratio during clinical hours) and students should not be utilized as additional staff/clinician.
- Provide access to patients and help the student select appropriate patients to develop the advanced practitioner role.
- Promote a positive learning environment – encourage inquiry, critical analysis, and reflection.
- Discuss diagnostic tests, when applicable, that may have led to the need for the surgical procedure being performed.
- Assist the student in preparing for the next day's clinical assignment, by having them review the cases they will be participating in.
- Observe the student for steady improvement in anticipating the surgeon's needs, and planning for the next phase of the surgical procedure.

Other Restrictions:

Some states require completion of a program delivered by a regionally or nationally accredited institution, require completion of a CAAHEP accredited program or require a certification (NBSTSA) that our (MedCerts) graduates will not be eligible to achieve.

- Idaho: Requires completion of a program from an accredited institution and NBSTSA certification
- Illinois: Requires completion of a CAAHEP accredited program and NBSTSA certification
- Massachusetts: Requires completion of a program from an accredited institution
- Nevada: Requires completion of a CAAHEP accredited program
- New York: Requires completion of a CAAHEP accredited program
- Tennessee: Requires completion of a CAAHEP accredited program and NBSTSA Certification

- Texas: Requires completion of a CAAHEP accredited program
- Virginia: Requires NBSTSA certification

Recommended Pre-Clinical Orientation:

- Introduction and tour of your facility and departments:** Pre-op, PACU, supply rooms, restricted and semi restricted areas, break rooms, locker rooms, and scrub locations.
- Introduction to equipment and surgical tables
- 20-40 hours in sterile processing:** This will give the orientee time opportunity to become familiar with the sets and instruments they will be using in the operating room. They will only have seen these in textbooks and having the opportunity to handle them prior to using them in the surgical setting will be very helpful.
- Pulling cases:** Gives the orientee opportunity to begin to have an idea of what they will be using for each case, as well as where supplies are kept in your sterile supply room.
- Practice time for scrubbing, gowning and gloving:** Although your orientee has been taught this throughout their program in videos, and 3d simulation, it is essential they have time to practice these skills repetitively.
- Opening sterile supplies:** Checking indicators and other sterility monitors.
- Draping back table, mayo stand, and ring stand
- Practice proper patient prep technique for different surgical sites
- Practice of patient draping for different surgical procedures

Intraoperative Skills

- Review of proper sharps handling:** Loading knife blades and removing them from handle. Practicing loading sutures onto needle holders.
- Review of proper initial count
- Accepting medications and fluids onto the sterile field properly
- Review passing different types of instruments to the surgeon
- Practice the placement and handling of different retractors

- Allow the orientee to review and handle the different means of achieving hemostasis during surgery
- Practice the processes involved in handling of surgical specimens
- Review assembly and use of different drainage systems used during surgery.
- Practice counts for cavity closures as well as final counts.

Post-Operative Skills

- Practice maintenance of the sterile field until the patient has been transferred to PACU.
- Demonstrate how to remove bioburden from the soiled instrumentation.
- Separate instrumentation in preparation for transport to the sterile processing department.
- Review with orientee proper sharps disposal, and red bag waste.
- Allow orientees to participate in proper room turnover procedures.

Recommended Pre-Clinical Orientation:

Students Name:

Date of Evaluation:

5 - Superior (student performs task perfectly, can teach others)

4 - Excellent (student performs task well, needs no supervision)

3 - Above Average (student performs task well, needs minimal supervision)

2 - Average (student performs task with some supervision and direction)

1 - Below Average (student can perform tasks only with direct supervision, and is not at the skill level expected of students at this time)

0 - Poor (student is unable to demonstrate task)

N/A - Not Applicable (student cannot be evaluated on this task at this time)

Pre-Operative Care and Preparation

Score

Comment

Gather appropriate supplies and equipment for procedure		
Don appropriate surgical attire in restricted areas		
Properly arrange furniture and equipment in OR prior to start of case		
Properly open sterile supplies		
Properly open sterile trays, checking indicators		
Demonstrate proper surgical hand scrub		
Demonstrate gown and gloving self		
Demonstrate gown and gloving team member		
Draping back table, mayo and ring stand		
Prepare a basic back table set-up		
Demonstrates the knowledge of instrument names and functions		
Properly assemble instruments and equipment		
Displays proper handling techniques of instruments		
Demonstrates proper handling of medications and fluids on the sterile field		
Can safely load blades and sutures		
Participate in properly run first count		
Understand and participate in TIME OUT		
Demonstrate and participate in a safe and proper transfer of the patient to the OR table		

Intraoperative Care and Preparation

Demonstrate proper handling of specimens		
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Proper handling and recording of number of medications and solutions used during procedure		
Applying anatomical knowledge to the procedure being performed		
Understanding the uses and effects of medications used during procedures		
Knowledgeable in the role of STs during potential OR emergencies (ex: MH, excessive bleeding, cardiac complications)		
Appropriately anticipates the surgeons needs		
Can properly load and pass suture		
Can properly load and pass knife		
Follows initial instrument pass with appropriate secondary instrument		
Handles sharps safely		
Properly store sharps after use on back table		
Can properly define RACE and PASS when asked		
Can take appropriate actions during a biohazard spill		
Can demonstrate proper safety precautions needed during laser cases		
Properly document correct information for implants		
Prepares dressings and supplies for end of case		
Participates in cavity and end of case counts		

Postoperative Care and Preparation

Maintain sterile back table and mayo stand until patient is transported to PACU		
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Properly cleans patient of all prep solutions		
Properly assists with dressings and casting materials		
Can recognize potential for post operative complications		
Properly disposes of appropriate sharps		
Properly disposes of biohazard waste		
Removes bioburden from soiled instruments		
Properly separates instruments in preparation for transport to sterile processing department		
Assists in completing room turnover		
Understands and participates in terminal cleaning of rooms		



National Center for
Competency Testing

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Office Hours: M-F 7:30am - 7:00pm CST

Saturday 9:00am - 3:00pm CST

EX-0504

**Tech in Surgery –
Certified
TS–C (NCCT)
Detailed Test Plan**

Rev: June 2019

Effective Date: November 2019

TS-C (NCCT) Detailed Test Plan

This detailed test plan reflects the results of a national job analysis study that determined the critical job competencies to be tested by NCCT in this certification examination. It contains 175 scored items, 25 unscored pretest items, and candidates are allowed four (4) hours to complete the examination. This certification examination is comprised of 95-98% standard, 4-option multiple-choice items and 2-5% alternative items (e.g., Drag and Drop, Multi-Select, Hotspot).

**Number of Scored
Items****Critical Job Competencies**

55

1. Preoperative Care and Preparation**a. Set up for surgical procedure**

- i. Arrange sterile instruments and supplies for surgical procedures
- ii. Visually inspect and assemble any equipment and instruments used during the case.

b. Execute patient safety

- i. Anticipate the needs of special patient populations (e.g., pediatric, geriatric, immune compromised).
- ii. Explain the surgical Time Out.
- iii. Understand safe transfer of the patient to the operating room table.
- iv. Understand placement of the safety belt and pressure pads on the patient.
- v. Verify count with circulating nurse/nurse (e.g., sutures, sharps, sponges, instruments).

c. Apply sterile technique

- i. Use appropriate personal protective equipment (e.g., mask, eye protection).
- ii. Explain the principles of aseptic technique while opening supplies for the surgery.
- iii. Describe proper sequence for surgical hand scrub.
- iv. Describe the proper technique for donning sterile gowns and gloves.
- v. Outline the sequence for gowning and gloving the surgical team.

- vi. Outline the sequence for draping the patient.

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2. Perioperative Care and Preparation

- a. **Assess the integrity and sterility of items**
 - i. Differentiate methods of sterilization (i.e., temperature, length of time).
 - ii. Determine liquid sterilant and disinfectants according to parameters and manufacturer's recommendations.
 - iii. Verify correct package integrity (read indicators, know what makes a package unsterile).
 - iv. Verify biological and DART air removal tests per protocol.
- b. Utilize preference cards
 - i. Modify surgeon's preference card (pick list) as necessary.
 - ii. Prepare supplies listed on preference card.
 - iii. Utilize cost saving measures.
- c. **Document unusual events** (e.g., sentinel events, incident reports)
 - i. Given an example, identify information required to complete an incident report.
 - ii. Define reportable incidents.
- d. **Understand environmental safety**
 - i. Initiate preventative and/or corrective actions in potentially hazardous situations.
 - ii. Perform appropriate actions during an emergency.
 - iii. Explain RACE & PASS.
 - iv. Utilize laser safety.

- v. Explain what actions to take during a biohazard spill.
- vi. Utilize Safety Data Sheets (SDS).
- vii. Understand standard precautions.
- e. **Prepare the operating room according to the surgical procedure** (e.g., temperature, position lights, ensure items are functioning, and placement of furniture)
- f. **Facilitate the completion of proper documentation**
 - i. Handle specimens appropriately.
 - ii. Report the total amount of medications and solutions used during the procedure.
- g. **Understanding of basic sciences as they relate to surgical procedures**
 - i. Apply knowledge of human anatomy to the surgical procedure.
 - ii. Apply principles of asepsis
 - iii. Distinguish modes of transmission of microorganisms to apply appropriate contact precautions (e.g., TB, MRSA, CDiff, VRE).
 - iv. Understand the uses, effects, and complications of drugs and solutions.
 - v. Execute the 5 rights of medication administration.
 - vi. G6 Understand appropriate fluid utilization.

3. Intraoperative Care and Preparation

- a. **Support the needs of the surgeon**
 - i. Assess the need for retraction to facilitate proper operative exposure.
 - ii. Determine necessary instruments and supplies during surgery.

- iii. Anticipate intra-operative assistance to the surgeon (e.g., sponging, suctioning,
- iv. irrigation, wiping instruments).
- v. Apply indirect cautery under the direction of the surgeon.
- vi. Prepare and cut suture materials as directed.

b. Execute end of the procedure tasks

- i. Summarize the steps to assist with skin closure.
- ii. Understand dressing materials.
- iii. Explain the application of casts, splints, braces, and similar devices.

c. Preparation of supplies

- i. Distinguish among stapling devices.
- ii. Confirm with the surgeon and the circulating nurse the specific type and/or
- iii. size of implantable devices.
- iv. Outline the steps for surgical device preparation (drains, catheters, tubing).
- v. Identify the appropriate sutures/needles.

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4. Postoperative Care and Preparation

- a. **Recognize possible post op complications** (e.g., bleeding at surgical site, hematoma)
- b. **Execute end of case procedures**
 - i. Complete room turnover after surgery (return unused supplies)
 - ii. Maintain the sterility of the back table and mayo stand until the patient leaves the room.
 - iii. Explain how to prepare the instruments for the decontamination and sterilization process

175

Total

