SURGICAL TECHNOLOGY PROGRAM

Ivy Tech Community College

COLUMBUS, IN

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You're curious about what goes on beyond the "red line"—the restricted areas of a hospital that lead to its operating rooms. Unless you're unfortunate enough to experience major surgery while awake, it's tough to get a glimpse of operating room (OR) happenings outside of a medical television show or during the few minutes before the anesthesia kicks in.

Whether you're looking for a strong entry point into the growing healthcare field or drawn by the rush of assisting with surgical procedures, Surgical Technologists have rewarding jobs and the journey to become one can be just as exciting.

But if you're considering becoming a Surgical Technologist, you've likely got a few questions about what the training will entail and what to expect. Let's take a closer look at what you'll see on your way to working in the OR.

4 Key components of Surgical Technologist training

Surgical Technologist training covers a lot of ground, but it can be broken down into four primary focus areas:

1. Choosing a Surgical Technology Program

There are several important factors to consider when picking a Surgical Technologist program. Affordability, admissions requirements and alumni outcomes are all worth considering—as well as the accreditation status of the program.

Programmatic accreditation from the Commission on Accreditation of Allied Health Education Programs (CAAHEP) allows graduates of these programs to apply for the Certified Surgical Technologist (CST)® credential from National Board of Surgical Technology and Surgical Assisting (NBSTSA). While this credential isn't the only option for Surgical Technologists, it may be required in some states.

Another factor you may want to consider when choosing a program is how you'll learn—you will be required to be in the classroom every day for Program-Specific courses. Although IvyTech does offer online options for General Education courses, the work of a Surgical Technologist is very hands-on and with this, our Surgical Technology Program specific courses are all held in-person. Be sure to have a good handle on what your time and travel commitments will look like before enrolling in a program.

2. Surgical Technology Courses

Once you've chosen the best program for you, the next step is to complete your Surgical Technologist coursework. So what classes would you have to look forward to? Here are a couple examples from our program courses:

- **Fundamentals of Surgical Technology:** This class sets the stage for your Surgical Technologist training. Here you'll learn the basics of maintaining a sterile environment, surgical procedures and important safety information like how to handle medications and the proper assembly and usage of surgical instruments.
- **Surgical Pharmacology:** In this course, you'll learn about the various ways anesthesia is administered, potential complications and interventions to take, and the ins and outs of common medications used during surgery.

There's no doubt that becoming a Surgical Technologist takes intensive training. While some people might have the misconception that Surgical Technologists just pass instruments to surgeons, the reality is that this role is a lot more complex than what meets the eye. There are hundreds of specialized instruments, think of the role in this way: Imagine a chef in a bustling professional kitchen asking you to pass the salt, but when you go to grab it you find a huge array of options—kosher salt, sea salt, Himalayan salt, black salt—which one do you choose? Knowing what's cooking, even if you aren't the head chef, would make you a lot better at making the right choice.

Surgeries are complex and present huge risks if even a seemingly small thing goes wrong—which is part of why these courses are meant to be a little intense.

A common thread amongst training in lab and in externships is: The more often you're thrown into an uncomfortable situation, the better you'll be at your job.

3. Surgical Technology Labs

Just sitting at your desk studying doesn't truly prepare you for the intensity of working the surgical suite. That why Surgical Technology training includes extensive labs that accompany your courses. These labs help you practice what you've learned while also preparing you for externships. At Ivy Tech Community College, you'll complete the following labs alongside corresponding lecture time:

- Applications of Surgical Fundamentals (surgery-specific)

  And surgical specialty courses, which have both lecture and hands-on components:

- Surgical Procedures I, II, III (surgery-specific)

In Ivy Tech's Application of Surgical Fundamentals course, students begin by learning individual skills, like:

- Opening and prepping supplies, including specialized instruments
- Scrubbing and gowning procedures
- Safe handling of sharp instruments, needles, suture, and blades

Once they learn individual skills, students practice stringing them together into a sequence that they'll apply to mock surgeries, giving them a strong foundation to build on during their externships. But labs aren't just about learning procedures and best practices. When we do mock cases in the lab, students are not just learning how to do a specific procedure, they are learning how to prioritize and manage responsibilities within the potential flow of a procedure.

Being a Surgical Technologist is more than just having a specific set of skills, it's about being able to truly focus on many things at once. Surgeries, even relatively short ones, require intense focus. Surgical Technologists are always aware of the sterility of the field, the locations of all the instruments, the patient's vitals and the movements of everyone else in the room. Surgical Technology labs are integral to developing this sustained focus and are a great way to gauge your fit for the field.

In a typical schedule, students will have one full lab day a week in the 1st 8-weeks of the semester, as well as the opportunity for extra lab time on Mondays and Thursdays. This allows for extended practice and skill refinement through practice and studying.

4. Surgical Technology Clinical Externships

Once you've got the fundamentals down, it's time to get some real-world exposure. Clinical externships allow Surgical Technology students to give direct patient care, work as a part of the surgical team and practice their skills in a live setting. Surgical Technologist clinical externships get you in the field and can have a huge impact on your career and future employment.

As you might expect, most Surgical Technologist clinical externships are conducted at hospitals, with opportunities to work in a variety of surgical specialties including:

- General surgery
- Gynecology and Labor & delivery
- Urology
- Neurosurgery
- Orthopedics and Podiatry
- Ophthalmology
- Ear, Nose and Throat (ENT)
- Plastics
- Cardiovascular, Peripheral Vascular, & Thoracics

Ivy Tech Surgical Technology students must fulfill over 600 clinical externship hours during their coursework. This extensive time means students will have over 120 surgeries under their belts when the time comes to start their job search.

Ready to start your surgical tech training?

Though there are many steps on the road to becoming a surgical technologist and finally getting a glimpse at life on the other side of the red line, our graduates speak from experience when they say the effort is worth it.

> **"**Never in a million years did I think I would get to see pulsating brains and beating hearts with my own two eyes. After years of failing at multiple universities, I had given up on my goals of being a nurse, let alone in surgery, which had been my dream since high school. I started my life, got pregnant, and realized I had to do better for my baby. I re-enrolled at Ivy Tech, raised my GPA (yikes), and stumbled across the Surgical Technology program online. I couldn't even believe I got accepted. Now, my patients rely on me to prepare their surgery in every aspect—from equipment & instruments, to the overall mood of the OR. The things I get to witness and participate in continue to blow my mind. I could NOT have done it without the support I received from Ivy Tech and all the people I met along the journey. Becoming a CST has given me a new purpose in life, secondary to motherhood. Although my patients may not remember me—courtesy of anesthesia—it's an honor to have such a huge impact on their care. **"**
>
> –Shayla B. | Associate of Applied Science in Surgical Technology, Columbus Ivy Tech Community College Graduate

Certified Surgical Technologist is a registered trademark of the National Board of Surgical Technology and Surgical Assisting.

The Surgical Technologist AAS Programs at Ivy Tech Community College are accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP.org) on the recommendation of the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA).

Questions:

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Surgical Technology Program

1. Admission/Selection

The Surgical Technology Program has a two-step admission process as described below:

Step 1 – Admission to Ivy Tech Community College – Columbus Campus

A. Follow standard college admission requirements

APPLICATION TO THE PROGRAM OR ENROLLING IN CLASSES THAT ARE PART OF THE SURGICAL TECHNOLOGY PROGRAM DOES NOT MEAN THAT THE STUDENT IS ADMITTED TO THE PROGRAM.

Step 2 – Admission to the Surgical Technology Program

A. Application to the Surgical Technology program is performed online through ivytech.edu. The application window is March 15th through May 15th annually.
B. Classes taken in the spring semester will be included in the application.
C. Once applied, the system will automatically take into account grades for completed classes and create a score. Grade point average is used as the tie-breaker. Columbus campus accepts 16 students annually. The 16 students with the highest score will receive automatic emails of Surgical Technology program acceptance by the application system prior to June 1st.
D. Students have 24 hours to respond to the program acceptance email or they will be skipped. It is recommended that students check their Ivytech email daily from May15th to June 1st.
E. During the first week of June, students accepted into the Surgical Technology program will receive notification by e-mail of a **MANDATORY** ORIENTATION/INFORMATION SESSION on the date stated in the email. This is typically the first or second week of July, on a Wednesday or Thursday from 8a-3p. Students must reply indicating intent to attend the mandatory information session by the date stated in the letter. Failure to attend this orientation session may result in forfeiture of a clinical spot for the current year.
F. All applicants to the Surgical Technology Program must pass a physical examination, provide vaccination status, and are expected to meet all admission and progression criteria, as well as the functions outlined on the **"Surgical Technology Program Essential Functions"** document. This information will be reviewed on orientation day. Students requesting accommodations to meet these essential functions must inform the Disability Services Coordinator in writing of the need for accommodations at the time of application for admission to the program.

G. Students who are not admitted to the program must reapply each year and are not given preferential consideration.

Scores are awarded based on the below chart. Students must maintain a GPA of 2.0 or above to apply.

Points Awarded	Completed Courses
A = 6 points **B = 4 points** **C = 2 points** **D = 0 points**	• APHY 101 Anatomy & Physiology I • APHY 102 Anatomy & Physiology II • HLHS 101 Medical Terminology • SURG 203 Surgical Pharmacology
Points Awarded	Completed Courses
A = 3 points **B = 2 points** **C = 1 points** **D = 0 points**	• MATH Mathematics 123 or higher • ENGL 111 English Composition • Humanities/Social Science PSYC 101 or SOCI 111 • Fundamentals of Public Speaking COMM 101 or Introduction to Interpersonal Communications COMM 102

EXAMPLE

Courses	Grade/Points	Rank Score
Anatomy & Physiology I	C = 2	Grade Points = 25
Anatomy & Physiology II	A = 6	
Medical Terminology	B = 4	
Surgical Pharmacology	B = 4	
Mathematics Elective	B = 2	
English Composition	A = 3	
Psychology 101	C = 1	
Communications 102	A = 3	

SURGICAL TECHNOOLOGY PROGRAM SEQUENCE

YEAR-ONE (EXAMPLE FULL-TIME SEQUENCE) IF NO 'BRUSH-UP' COURSES ARE NEEDED

FALL SEMESTER (16 WEEKS)

IVYT	111	Student Success	1 CR HR
MATH	123	Math	3 CR HR
PSYC	101	Intro Psychology	3 CR HR
APHY	101	Anatomy & Physiology I	3 CR HR
ENGL	111	English Comp	3 CR HR
			13 CR HR Total

SPRING SEMESTER (16 WEEKS)

APHY	102	Anatomy & Physiology II	3 CR HR
COMM	102	Intro Interpersonal Comm (Recommended)	3 CR HR
HLHS	101	Medical Terminology	3 CR HR
SURG	203	Surgical Pharmacology	3 CR HR
			12 CR HR Total

PROGRAM READY

- **Apply online to Surgical Technology Program:**
  Application window is March 15th-May 15th.
- **Once Accepted: early-June email detailing date of Mandatory Orientation**
- **Early July: Mandatory Orientation**
- **Program Begins with Fall Semester and is 3 semesters long:**
  Fall, Spring, Summer-see next page
- **Program completed end of July**

The Surgical Technology Program is intense and fast paced. These classes require extreme focus and quick critical thinking skills. It is STRONGLY recommended to have all other classes completed upon the conclusion of Year One Spring Semester.

Remember: a GPA of 2.0 is REQUIRED to stay in this program. You WILL BE dropped from the program if your GPA is les that 2.0. As well, you must maintain a grade of 80% minimum to progress through the program.

These classes are face-to-face/in-person classes and are not virtual or online.

YEAR-TWO REQUIRED FULL-TIME SEQUENCE

FALL SEMESTER

First 8 Weeks

SURG	111	Fund of Surgical Technology	(M, R; 8a-12p)	4 CR HR
SURG	112	Applications of Surgical Fund	(T or W; 8a-4:30p)	2 CR HR

Second 8 Weeks

SURG	113	Surgical Procedures I	(M, R; 8a-12p)	3 CR HR
SURG	114	Clinical Applications I	(T, W; 7a-4p)	3 CR HR
				12 CR HR Total

SPRING SEMESTER

SURG	211	Surgical Procedures II	(M, F; 8a-12p)	6 CR HR
SURG	212	Clinical Applications II	(T, W, R; 7a-4p)	9 CR HR
				15 CR HR Total

SUMMER SEMESTER

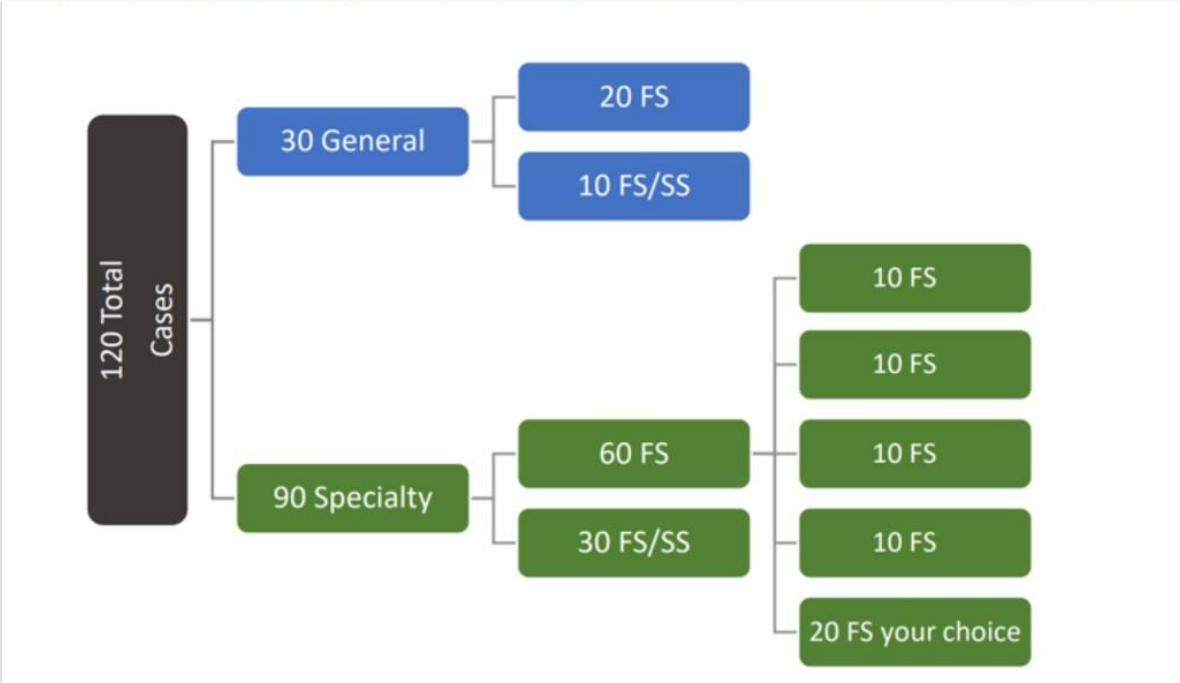
SURG	213	Surgical Procedures III	(M; 8a-3p)	3 CR HR
SURG	214	Clinical Applications III	(T, W, R, F; 7a-4p)	7 CR HR
				10 CR HR Total

PROGRAM COMPLETE

MINIMUM SURGICAL CASE REQUIREMENTS PER ARCSTSA

Surgical Rotation and Roles

1) Surgical Rotation Case Requirements.
   a) A student must complete a minimum of 120 cases as delineated below in the diagram.



FS: First Scrub

SS: Second Scrub

COMMUNICATION OF SAFETY CONSIDERATIONS

The surgical technology program ensures that students receive information about known and suspected health hazards and toxic substances which they may be exposed to during clinical.

Risk factors involved in the operating room include, but are not limited to:

Physical Risk Factors	temperature, noise, lighting, humidity, air-conditioning, air pollutants, ionizing radiation, non-ergonomic work conditions, latex allergy, sharps injuries, etc.
Chemical Risk Factors	disinfectants, anesthetic agents, cytotoxic agents, drugs, some heavy metals such as mercury and latex are primary chemicals used in operating rooms, glutaraldehyde, formaldehyde, ethylene oxide, Methyl methacrylate, etc.
Biological Risk Factors	Hepatitis B, Hepatitis C and AIDS, respiratory transmitted diseases, coronavirus, various pathogens and blood born infections, laser and electrical plume
Psychological Risk Factors	psychological reactions due to stress, workplace violence/bullying
Ergonomic Risk Factors	musculoskeletal injuries, trips/falls
Radiation Risk Factors	carcinomas caused by radiation exposure, thyroids, eyes, hands and gonads are among the regions that are most affected by radiation