



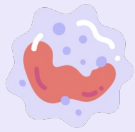
AST

Presentation to the Oregon



Bureau of Labor and

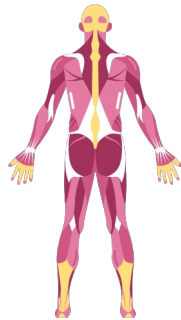
Industries



August 2023



INTRODUCTION



AST- Founded in 1969

55,000+ members nationwide

Diverse

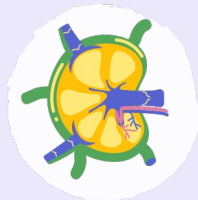
700 Oregon Members

The non-profit Association of Surgical Technologists, founded in 1969, has more than 53,000 diverse members nationwide with strong representation from BIPOC communities, LGBTQIA+, and young people, with about 700 surgical technologists belonging to the Oregon Association of Surgical Technologists.

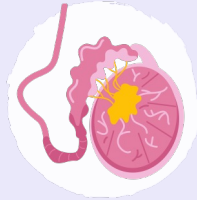
OR-AST SUPPORTS



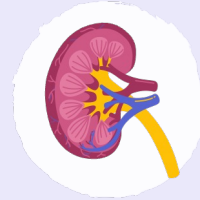
Oregon AST
members



Highly-
educated
trainees

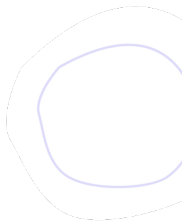


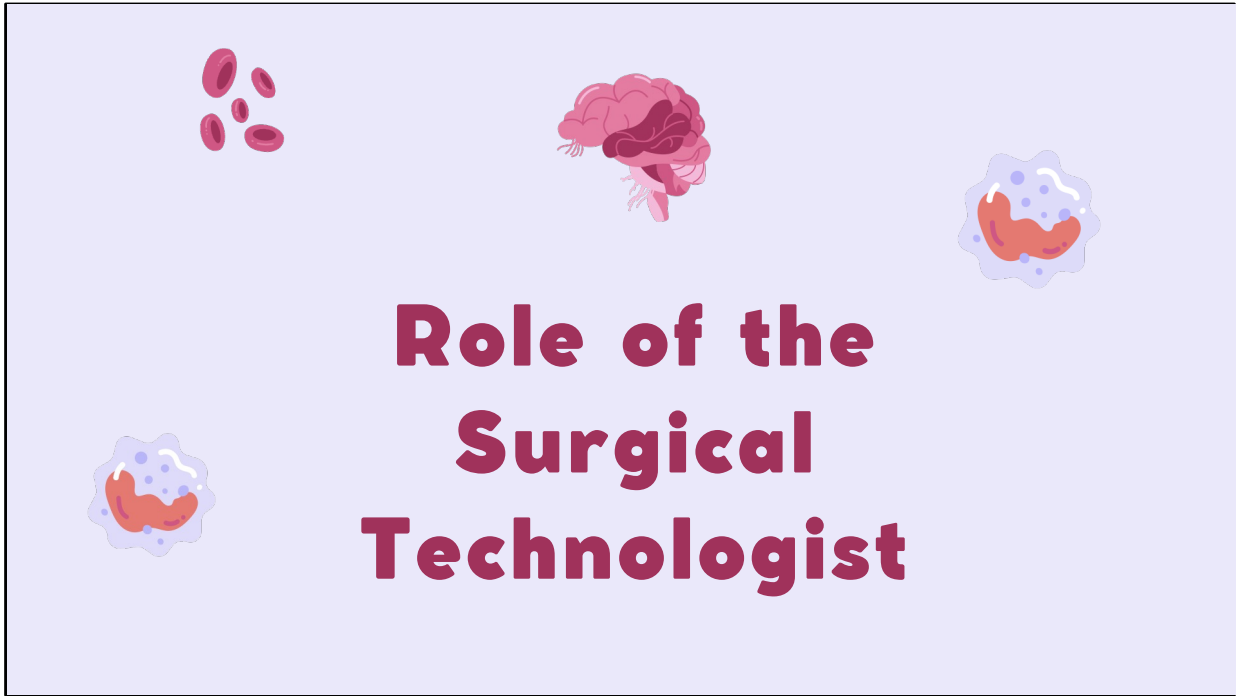
High educational
standards



Surgical
patient
safety

While we opposed apprenticeship legislation, we can now best advocate for our members, surgical patients, and future surgical technology trainees by supporting apprenticeships and championing for the high educational standards that were promised by the legislation's proponents.





The role of the surgical technologist.

SURGICAL TECHNOLOGISTS' ROLE OVERVIEW



Surgical Technologists are an essential part of the surgical team.

- Surgical Technologists not only serve as the surgeon's co-pilot and provide instruments and supplies to the surgeon, but they prevent patient death and harm related to medication, surgical fires, instruments and implants, cancer specimens, infection, and bleeding.
- Surgical technologists are the surgical team member that maintain the sterile surgical field to ensure members of the surgical team adhere to sterile technique to prevent surgical site infections.
- As essential surgical team members, surgical technologists must perform very effectively to prevent events, including medication errors, surgical implant errors, unintended retained surgical items, patient burns, and incorrect site surgery.
- Surgical technologist's role in passing instruments plays a very small part of their overall role in protecting patients.

Surgical Technologists Ensure Presence of Instrumentation *Needed* for Surgery



Surgical Technologists Ensure Presence of Instrumentation Needed for Surgery

The surgical technologist sets up the room, not the surgeon. This requires a deep understanding of thousands of instruments in various specialties. Surgeons often enter the room after the patient is asleep. Adverse events happen when surgical technologists don't have all the needed instrumentation in the room before surgery.

For example, some spine surgeries have two different approaches and require two completely different sets of instruments. Another example is that a surgery may be a neuro and ENT, again requiring two different sets of instruments that the surgical technologist needs to comprehend. New technologies like navigation and robots have also added complexity to case set-up, especially if the robotic case is only partially robotic.

You can see a back table here. No one sets this up besides the surgical technologist. The surgeon isn't even in the room yet. The nurse is doing his or her own responsibilities.



Surgical Technologists Set the Pace of Surgery

Surgical technologists set the pace of surgery.

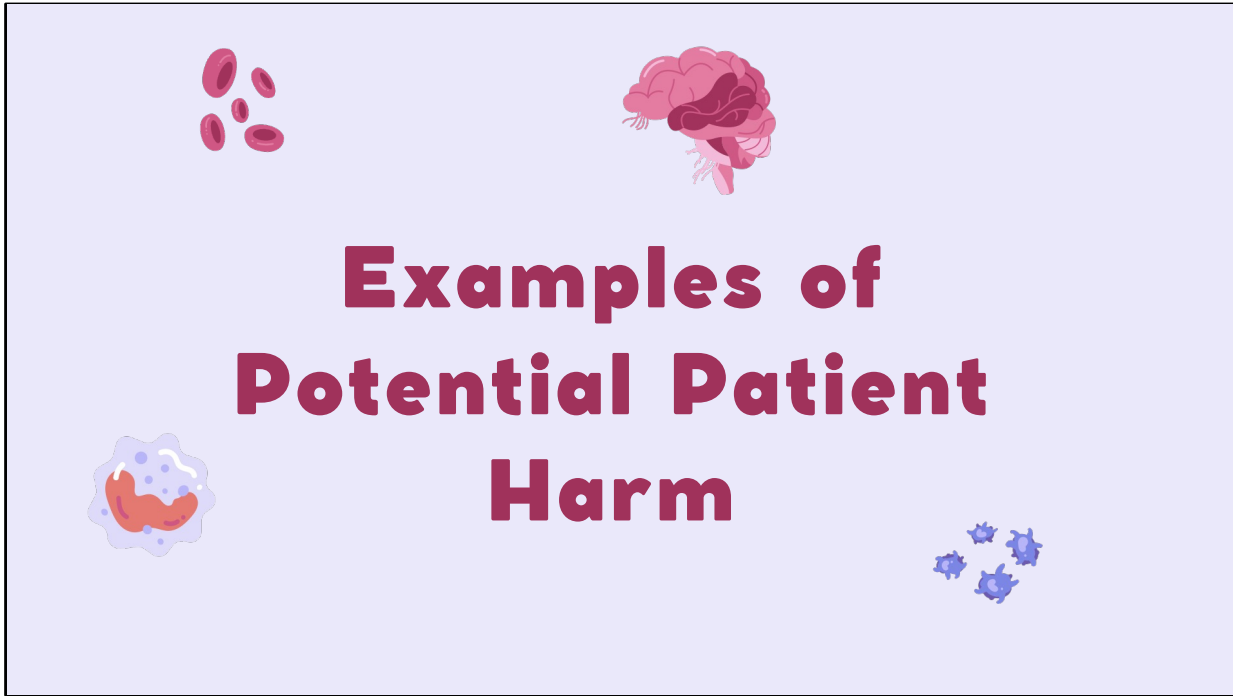
They serve as the surgeon's co-pilot and provide instruments and supplies to the surgeon during surgery, and they must constantly anticipate the surgeon's needs. Every extra minute a patient is under anesthesia the risk of infection and anesthesia-related complications increase.

No One Supervises the Surgical Technologist Before or During Surgery



No One Supervises the Surgical Technologist Before or During Surgery

The surgeon is not in the room before surgery. Circulating nurses are busy seeing the patient before surgery. During surgery, the surgeons' eyes are on the surgical site. The surgical technologist's eyes are on the sterile field, the surgeon and the patient. Circulating nurses do not have time to watch surgical technologists. They are busy helping get the patient under anesthesia, setting up surgical equipment, charting, tracking countable items, and preparing for the next case.



Examples of potential patient harm:

Surgical technologists who have received an accredited education, which included skills training before clinical training is essential to prevent harm to patients in the OR. Here are examples of what untrained surgical technologists might encounter.

Surgical Technologist Errors in Medication Safety Can Cause Patient Harm and Death



Surgical Technologist Errors in Medication Safety Can Cause Patient Harm and Death

Three very prevalent medications in surgery are heparinized-saline, lidocaine, and epinephrine. Using these medications incorrectly has caused patients to code. Education and skills labs teach surgical medication and medication safety before students enter the operating room. Also, patients have been blinded when the wrong medication was injected into the eye.

Surgical Technologists Prevent Surgical Fires



Surgical Technologists Prevent Surgical Fires

Surgery creates a high fire risk because supplemental oxygen is often present near ignition sources which are very common in surgery, such as electric cautery. Surgical technologists also play a critical role in preventing surgical fires because they manage electrocautery and lights.

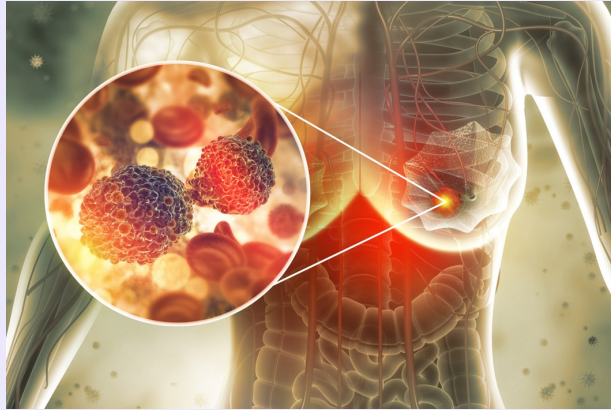


Surgical Technologists Prevent Patient Harm Related to Instruments and Implants

Surgical Technologists Prevent Patient Harm Related to Instruments and Implants

The surgical technologist manages instruments and implants that can harm patients during surgery. For example, in neurosurgery cases, the surgical technologist assembles drills that go into the patient's brain. The surgical technologist ensures all equipment is correctly assembled to prevent serious surgical errors. Surgeons don't check for correct drill assembly. Surgeons expect surgical technologists to get it right. The surgical technologist also prepares surgical implants like heart valves, artificial hips, knees, and spine implants. Patients have died, for example, when an untrained surgical technologist has mixed the bone cement incorrectly for a knee replacement. It takes a team to make an error like this; it also takes a team to prevent one.

Surgical Technologists Prevent Patient Harm and Death Related to Cancer Specimens



Surgical Technologists Prevent Patient Harm and Death Related to Cancer Specimens

The surgical technologist's ability to manage cancer specimens quickly and accurately can be life or death to the patient, as a mix-up can lead to the wrong cancer treatment. This requires not only mechanical automaticity but also knowledge of medical terminology. Surgeon's place cancer specimens on the surgical technologist's sterile table at an incredibly fast pace. Nurses are not in the sterile field and absolutely rely on surgical technologists to quickly and accurately track and label specimens. Each specialty has about a hundred different names of specimens. It is truly a nightmare situation when an untrained surgical technologist gets befuddled during cancer specimen cases. The surgeon's visual focus is on the cancer itself, so looking away from the field and helping the surgical technologist compromises care. Also, at this point, the untrained surgical technologist has often already confused specimens.

Surgical Technologists Prevent Patient Harm and Death Related to Sterile Technique



Surgical Technologists Prevent Patient Harm and Death Related to Sterile Technique

Surgical technologists maintain the sterile surgical field to ensure surgical team members adhere to sterile technique. Sterile technique quickly becomes very complex in some instances, such as breast cancer cases with one healthy breast removed prophylactically, bowel cases, and combined ENT/brain surgeries in which a tumor crosses a boundary.

In its *Action Plan to Prevent Healthcare-Associated Infections*, the US Department of Health and Human Services cited that surgical site infections result in an estimated 13,088 deaths annually and cost hospitals approximately \$25,546 per infection.

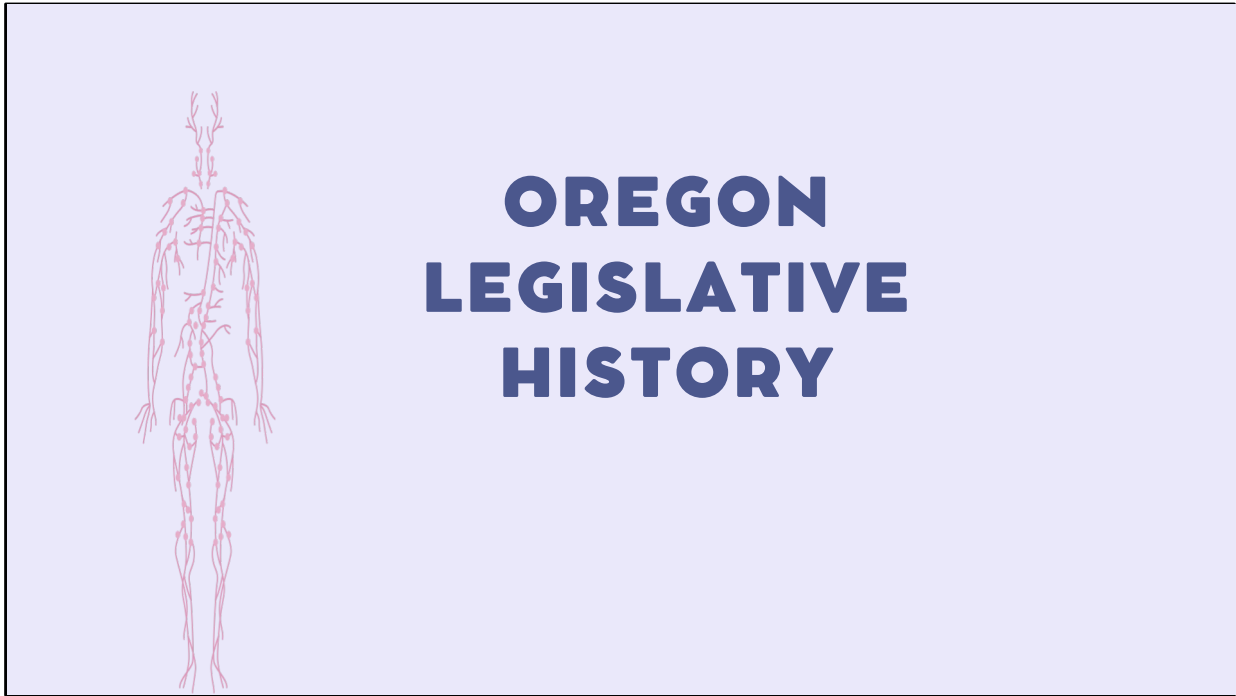
Here is a photo of an infected implant.

Surgical Technologists Prevent Patient Harm and Death Related to Bleeding



Surgical Technologists Prevent Patient Harm and Death Related to Bleeding

Automatic reflexes are built with practice during skills lab and clinicals. The pace and skill of the surgical technologist are vital to patient outcomes during cases with rapid bleeding. I have personally seen the pace of a well-educated and skilled surgical technologist save a life during a trauma.



Oregon Legislative History

Since BOLI's role is the end of the story of a 14-year debate I'm going to spend a few minutes discussing it.

OREGON LEGISLATIVE HISTORY

2009–2016

OREGON AST AND AST WORK TO PASS LEGISLATION REQUIRING ACCREDITED EDUCATION AND CERTIFICATION.

2016

LEGISLATION PASSES TO REQUIRE ACCREDITED EDUCATION AND CERTIFICATION FOR NEWLY-PRACTICING SURGICAL TECHNOLOGISTS.

2016–2020

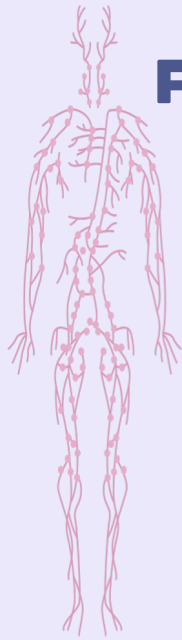
2016- 2020 NEWLY-PRACTICING SURGICAL TECHNOLOGISTS IN OREGON ARE GRADUATES OF ACCREDITED PROGRAMS AND CERTIFIED



Original Legislation:

2009-2015- Legislation introduced every year to require accredited education and certification for newly-practicing surgical technologists and continuing education for non-certified.

2016- Legislation passes to require accredited education and certification for newly-practicing surgical technologists.



FAILED ATTEMPTS TO ADD APPRENTICESHIPS

2020 LEGISLATION INTRODUCED TO ADD AN APPRENTICESHIP PATHWAY *WITHOUT ACCREDITED EDUCATION*. LEGISLATION FAILS.

2021 ASCS INTRODUCE LEGISLATION TO ADD AN APPRENTICESHIP PATHWAY THAT *DOES NOT REQUIRE ACCREDITED EDUCATION FOR APPRENTICESHIPS OR BOLI-APPROVED EDUCATION*. LEGISLATION DEFEATED.

Failed Attempts to Add Apprenticeships

Adding apprenticeships to the surgical law led to years of debate in the legislature.

2020- Legislation introduced to add an apprenticeship pathway without accredited education. Legislation fails.

2021- ASCs introduce legislation to add an apprenticeship pathway that does *NOT require accredited education* for apprenticeships or BOLI-approved education. Legislation *defeated*.

COMPROMISE OF 2022= Accredited Apprenticeships



- 2022** • **ASCs introduce legislation apprenticeships + accredited education.**
- **This accredited education allows certain Oregon community colleges to change legislative position from oppose to neutral.**
 - **Legislation passes because legislators believe apprenticeships will have equal educational standards. Many legislators stated on the record they were only voting for the legislation because it will create equal educational pathways.**

Compromise for Apprenticeships = Accredited Education

2022- ASCs introduce legislation to add an apprenticeship pathway that also requires accredited education. This accredited education allows certain community colleges to change legislative position from oppose to neutral. Legislation passes *because it requires accredited education*. Many legislators stated on the record they were only voting for the legislation because it will create equal educational pathways.

2022 Oregon Health Authority Rulemaking

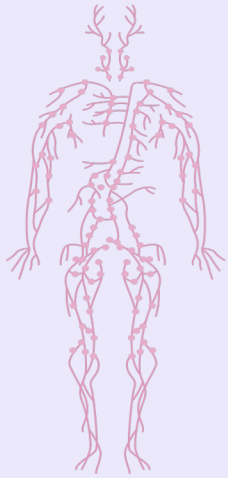


2022 Oregon health authority interprets the law and legislative intent that BOLI must consider whether the program's occupational standards submitted to BOLI implements satisfactory education and training curriculum and requirements to protect health and safety of apprentices and patients, including but not limited to whether the curriculum meets or exceeds the core curriculum standards established by the Association of Surgical Technologists in its Core Curriculum for Surgical Technology, Seventh Edition.

The AST Core Curriculum is available at [www.ast.org/educators/core curriculum](http://www.ast.org/educators/core%20curriculum).

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COMPROMISE OF 2023= Apprenticeships with BOLI- approved Education

Compromise for Apprenticeships = BOLI-approved Education

2023- ASCs introduce legislation to *remove* accredited education requirement for apprenticeship pathway. After much legislative debate and well-attended hearings with vigorous debate, a compromise is found to require *BOLI-approved education*. Former BOLI Commissioner Hoyle now Congresswoman Hoyle even called to confirm intent of 2022 legislation was accredited education.

2023- Oregon becomes one of two states with a surgical technology law with apprenticeships recognized in law. Virginia allows Department of Labor apprenticeships, which will be discussed later.

State Law Overview



Before the Oregon apprenticeship law all states that regulate Surgical Technologists require in law completion of an accredited education program of Surgical Technology (accredited by CAAHEP and ABHES) and certification for newly-practicing surgical technologists, exempting certain surgical technologists such as military-trained surgical technologists.

Oregon opened the door to apprenticeships, and Virginia followed suit, passing a Department of Labor-approved apprenticeships.

Most states that regulate Surgical Technologists require in law that hospitals oversee the competency of surgical technologists. Most of these states require the individual completes an accredited program of surgical technology (accredited by CAAHEP and ABHES) and then becomes certified and have exceptions in the law for people who were already practicing as surgical technologists, recent graduates of accredited programs, and military-trained surgical technologists.

**Why must surgical
technology education be
high quality?**

High-quality education must prepare the individual for the high-paced and high-risk world of the operating room.



While AST understands the need for apprenticeships to improve the workforce issues in healthcare facilities, there is a need for surgical technologists to be well-trained rather than receive on-the-job training. AST believes there must be accredited education that will prepare the individual for the high-paced and high-risk world of the operating room. The American College of Surgeons strongly supports the accreditation of all surgical technology educational programs and supports examination for certification of all graduates of accredited surgical technology educational programs. The American College of Surgeons has issued a statement in support of this. This statement was subsequently approved by the Association of Surgical Technologists, American Society of Anesthesiologists, American Association of Surgical Physician Assistants, American Association of Nurse Anesthesiology, and American Society of PeriAnesthesia Nurses. AORN's job description for surgical technologists also requires graduation from an accredited program.

AST believes apprenticeships are successful when they are offered to individuals who are currently in a CAAHEP- or ABHES- accredited surgical training program and participate in an apprenticeship when they are working on their clinical requirements as part of that program. Therefore, AST's message nationwide is the apprenticeships should be done in collaboration with accredited programs.

Accredited programs qualify trainees for the CST credential. The CST credential is the only credential recognized nationally and the only credential recognized by the American College of Surgeons and the Association of Surgical Technologists. The Council on Surgical and Perioperative Safety (CSPS), in their statement *CSPS Surgical Team Member Role Partner Organizations and Credentials*, recognizes the various perioperative surgical team members and their credentials for an optimal safe surgery team. Only the CST certification is recognized for surgical technologists. AORN's job description for surgical technologists requires the CST.

High-quality Didactic Education with Skills Lab is the Appropriate Minimum Standards for Surgical Technology and Patient Safety



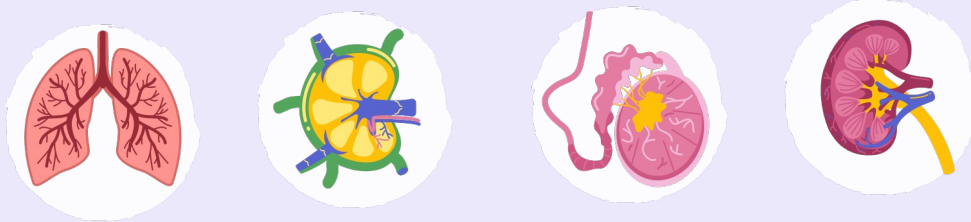
High-quality didactic education with skills lab is the appropriate minimum standard for surgical technology and patient safety and both are required for accreditation. This ensures surgical technologists learn everything they need to learn prior to setting foot in the fast-paced, high-pressure, high-stakes operating room. Accredited education includes a skills lab that is 225 hours. This allows trainees who are learning to practice essential skills like assembling drill and maintaining sterility away from an actual patient. Accredited education also includes 540 hours of diverse clinicals. This ensures surgical technologists learn the instrumentation and safety precautions and processes associated with the many diverse surgical specialties. Each specialty has unique patient safety issues.

It was the intent of the legislature that apprenticeships include all 3 components of accredited education: Didactic education, skills lab, and diverse clinical rotations.

History has proven that the appropriate level of education for surgical technologists is an accredited college-based or technical-school-based education, skills lab, and clinical rotations to be prepared for the very high-tech, fast-paced, high-stakes, high-pressure, and diverse world that is the operating room. Accredited surgical technology educational programs appropriately reflect the time it takes to learn surgical technology, protect patients, protect themselves, and protect other staff members.

The reason over time surgical technology has moved from in-hospital training to educational settings. Healthcare facilities have come to realize that these professionals had too much to learn on the job. The structure of accredited programs is the perfect fit for the didactic, simulation lab, and clinical training required to enter practice as a competent, safe surgical technologist. Didactic education prepares students for skills lab. Didactic education and skills lab provides the foundation for clinicals. Didactic education, skills lab, and clinicals prepare students for certification. Then, the surgical technologist is ready to work.

Surgical Technology Requires Maturity, Education, and Judgment

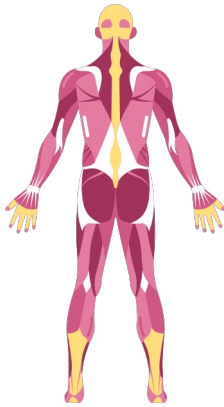


Surgical Technology Requires Maturity, Education, and Judgment

The ASCs are saying apprenticeships should be simple to increase workforce as fast as possible. It is important remember the level of needed education, training, and judgment is more on the level of nurses and physician assistants than diploma health tech positions. A level of maturity and judgment is also required to be in the operating room. Surgical technology is only a good fit for some people. If a person does not yet have the life skills to pass college-level classes, the chances are they are not sufficiently skilled yet to be in an operating room. The operating room is full of highly-educated professionals who expect a very high level of performance. The operating room is an incredibly intense environment.

LINN BENTON PROGRAM IN ALBANY, OREGON

Here is an example how many hours a surgical technology student spends learning surgical technology at this program:



YEAR ONE

Fall Term

Surgical Technology 111- Introduction to Surgical Theory, 4 credits, 44 hours didactic
Surgical Technology 112- Surgical Theory II, 4 credits, 44 hours didactic
Anatomy & Physiology II, 5 credits, 33 hours didactic/44 hours lab

Winter Term

Surgical Technology 113 Surgical Theory III, 4 credits, 22 hours didactic/44 hours lab
Anatomy & Physiology III, 5 credits, 33 hours didactic/44 hours lab
Digital Literacy, 3 credits, 33 hours didactic

Spring Term

Surgical Technology 114 - Surgical Theory IV, 4 credits, 22 hours didactic- 44 hours lab
Medical Terminology and Body Systems I, 3 credits, 33 hours didactic
Microbiology, 4 credits, 22 hours didactic- 44 hours lab
Interpersonal Communication, 4 credits, 44 hours lab

YEAR TWO

Fall Term

Surgical Technology 210-General & Pediatric Surgery, 4 credits

22 hours didactic/44 hours lab

Surgical Technology 211- Obstetric, Gynecologic, & Genitourinary Surgery, 4 credits

22 hours didactic/44 hours lab

Surgical Technology 212- Orthopedic Surgery, 4 credits 22 hours didactic/44 hours lab

Winter Term

Surgical Technology 213- Otorhinolaryngologic, Oromaxillofacial, Plastic, & Burn Surgery,

4 credit hours, 22 hours didactic/44 hours lab

Surgical Technology 130 Clinical Practicum I, 6 credits, 220 hours clinical

General Psychology, 4 credits, 44 hours didactic

Spring Term

Surgical Technology 214- Ophthalmologic & Neurosurgery, 4 credits,

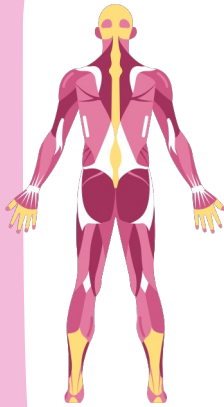
22 hours didactic/44 hours lab

Surgical Technology 215- Thoracic, Cardiovascular & Vascular Surgery, 4 credits

22 hours didactic/44 hours lab

Surgical Technology 131 Clinical Practicum II, 6 credits. 220 hours didactic

Surgical Technology 180 - Certified Surgical Technologist Exam Preparation and Job Success, 1 credits, 11 hours didactic





REGISTERED APPRENTICESHIPS



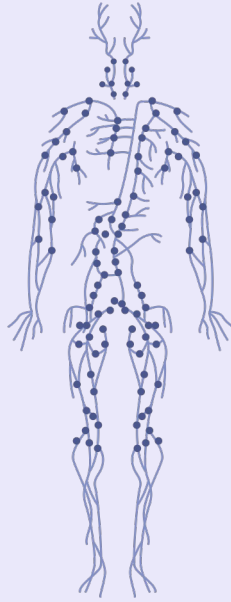


Most health facilities around the country advertising Registered Surgical Technology Apprenticeships in the summer of 2023 require enrollment in an accredited surgical technology program:

- a. UC Health – multiple apprenticeships around Colorado**
- b. Centura Health – Aurora, CO**
- c. Fairview Health- Minneapolis, MN**
- d. Berkshire Health Systems – Berkshire, MA**
- e. The Orthopedic Hospital – Ft. Wayne, IN**
- f. Trinity Health – Grand Rapids, MI**

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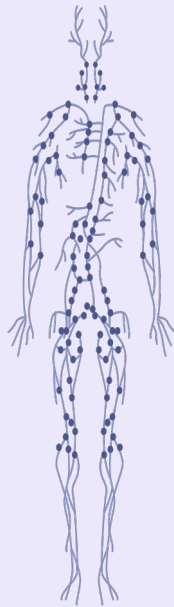
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It is important BOLI allows partnering with accredited programs as a pathway for apprenticeships. If the education meets CAAHEP accreditation standards, it will almost definitely meet federal registered apprenticeship standards and the ARCSTSA has a chart to demonstrate this, link below.

https://arcstsa.org/wp-content/uploads/2023/02/ST_Workforce_Shortage_Booklet_website.pdf

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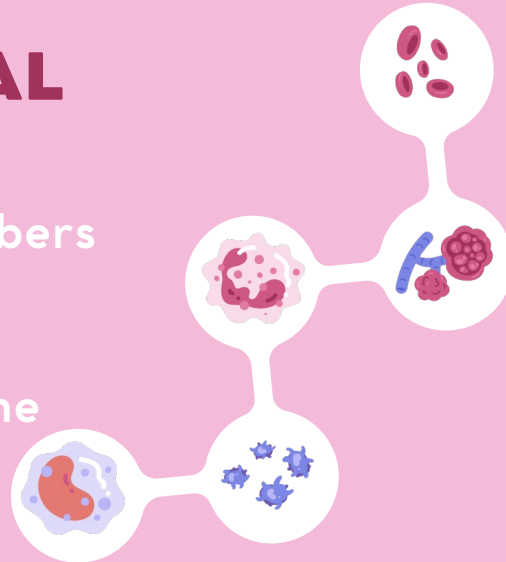


AST urges BOLI to consider encourage apprenticeships as part of the accredited education required of Certified Surgical Technologists, and when hospitals and ambulatory surgical centers create their own educational models, to ensure this training will adequately prepare the surgical technologists for the *fast-paced, high-pressure* world of the operating room and to protect patients.

AST urges BOLI to encourage apprenticeships to partner with accredited surgical technology programs, and when hospitals and ambulatory surgical centers create their own educational models, to ensure this training will adequately prepare the surgical technologists for the fast-paced, high-pressure world of the operating room and to protect patients.

A FEW FINAL POINTS

Sharing our members concerns about apprentices being ready for the operating room.



A few final points – and many members have asked us to make this point to you...core curriculum standards for apprenticeships will help with retention of current workforce.

Many surgical technologists nationwide being asked to train others on-the-job are leaving that healthcare facility because it's too stressful. Trainees entering operating rooms need a solid educational foundation before setting foot in operating rooms. Many important topics must be taught for patient safety before a trainee sets foot in the operating room. The teaching burden mustn't be placed on current Certified Surgical Technologists in rooms with actual patients and real surgeons expected to work very quickly. There isn't time during an actual surgery to lay the foundation for new trainees. ***Being placed in an operating room with an ill-prepared trainee is unsafe, incredibly stressful, and unsustainable.***

Apprenticeships may create a few new surgical technologists per year.

Meanwhile, more than 1,000 surgical technologists in Oregon need to be retained. Retention is a real problem at healthcare facilities.

Apprentices who are ready to set foot in the operating room will help with workforce retention.

Conclusion-

AST believes Oregon apprenticeships will meet the intent of the law if the surgical technologist participates in an accredited program that has all three components:

- a. An equal didactic component to the program;**
- b. An equal skills lab**
- c. An equal clinical lab**

The Oregon legislature placed educational standards in BOLI's hands.

AST has faith BOLI understands 1.) The legislative intent and that it was clearly the intent of the legislature that the apprenticeships are an EQUAL educational pathway. Legislators voted for this law stating in the legislative record they are only voting for it because the educational pathways are equal

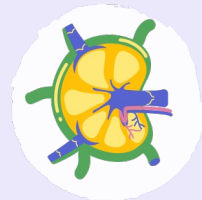
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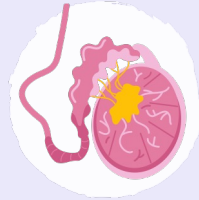
OR-AST AND AST ARE A RESOURCE FOR BOLI



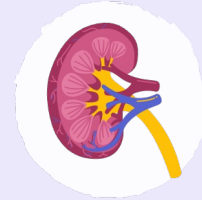
**Oregon AST
members**



**Highly-
educated
trainees**



**High educational
standards**



**Surgical
patient
safety**

OR-AST and AST are a resource for BOLI to support the development of these apprenticeships, high-quality trainees, and surgical patient safety.

