ARC/STSA

Accreditation Review Council On Education
In Surgical Technology And Surgical Assisting

Addressing the Surgical Technologist Workforce Shortage

The ARC/STSA has developed this resource booklet as part of a comprehensive initiative to support our surgical technology programs in addressing the surgical technologist workforce shortage in their communities. These resources and others are available on the ARC/STSA website under the resources tab (https://arcstsa.org/st-workforce-shortage/) or through the QR code below. Many thanks to all our educators across the country for your dedication to your programs, students, communities, and the surgical patient. Please reach out to ARC/STSA at info@arcstsa.org for support or with any questions.

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Introduction to Surgical Technology Education and Programmatic Accreditation

The History of Surgical Technology Education and Accreditation

The profession of surgical technology developed during World War II when there was a critical need for assistance in performing surgical procedures and a shortage of qualified personnel to meet that need. Individuals were educated specifically to assist in surgical procedures and to function in the operative theatre.

In December 1972, the Council on Medical Education of the American Medical Association (AMA) adopted recommended educational standards for the profession of surgical technology, leading to the formation of the Accreditation Review Committee on Education in Surgical Technology (ARC-ST). Specialized accreditation of educational programs in surgical technology began in 1974, implementing standards of compliance developed in collaboration by the American College of Surgeons (ACS) and the Association of Surgical Technologists (AST).

In September 1994, the ARC-ST incorporated as a 501(c)(3) and became one of the member Committees on Accreditation (CoA) within the Commission on Accreditation of Allied Health Education Programs (CAAHEP). Specialized accreditation of educational programs in surgical assisting began in 2000, and the ARC-ST formed the Subcommittee on Accreditation in Surgical Assisting (SASA) to review program compliance and formulate accreditation recommendations to the ARC-ST Board of Directors.

On August 1, 2009, the ARC-ST formally changed its name and logo to accurately reflect the full scope of accreditation services provided in both surgical technology and surgical assisting, becoming the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA). In 2017, the ARC/STSA formed Education & Accreditation Resource, LLC, to better provide education opportunities and accreditation guidance to their accredited programs, sponsoring institutions, and the surgical technology and surgical assisting communities it serves. In 2023, the ARC/STSA oversees accreditation services for approximately 400 CAAHEP-accredited programs throughout the United States. These programs produce more than 6,000 graduates a year.

The ARC/STSA, ACS and AST cooperate to establish, maintain, and promote appropriate standards of quality for educational programs in surgical technology and surgical assisting. CAAHEP-accredited educational programs meet or exceed the Standards outlined in the *Standards and Guidelines for Accredited Educational Programs in Surgical Technology* and the *Standards and Guidelines for Accredited Educational Programs in Surgical Assisting.* These

Standards are the minimum standards of quality used in accrediting programs that prepare individuals to enter the professions of surgical technology or surgical assisting; therefore, the Standards constitute the minimum requirements to which an accredited program must maintain compliance.

Based on compliance with the Standards and the recommendation of the ARC/STSA, CAAHEP grants programmatic accreditation to surgical technology and surgical assisting programs. The Council for Higher Education Accreditation (CHEA), a non-governmental body that reviews and recognizes accrediting agencies, recognizes CAAHEP.

Specialized accreditation of a surgical technology or surgical assisting program involves thorough review of the program's resources, including faculty, student-to-faculty ratio, financial resources, physical resources and learning resources, and of admissions policies, student records, curriculum, student evaluation methods and programmatic outcomes. Only community colleges, technical and junior colleges, universities, proprietary schools, branches of the military and hospitals that have the appropriate institutional accreditation may apply for specialized accreditation for their surgical technology and/or surgical assisting programs.

Accreditation of surgical technology and surgical assisting programs is an ongoing and outcomes-based process in which accredited programs must submit reports annually to ensure continuing compliance with established criteria. Comprehensive review of programs occurs via on-site evaluation at least once every 10 years.

The Current Shortage of Surgical Technologists

Two years of a worldwide pandemic has had a significant impact on staffing in many allied health professions. As related to surgical patient care, shortages of surgical technologists have created crisis conditions for hospital systems around the country. The pandemic contributed to two years of low enrollments, delayed graduations, and higher-than-normal student attrition in accredited surgical technology education programs. This, coupled with lower admissions in community colleges nationwide, attrition of employed surgical technologists and professional burnout have led to severe shortages of surgical technologists around the country.

Over the past year, we have seen the healthcare industry response to this shortage: sign-on bonuses, salary adjustments, and lucrative traveler contracts. Seemingly these strategies have not had the desired impact of alleviating the shortage, so an even more concerning trend has emerged, circumventing formal education of surgical technologists.

Critical shortages of surgical technologists have contributed to an increase in hospital-based alternative training as well as abbreviated online training programs, neither of which meet the Standards associated with a fully accredited surgical technology education program. Some of the alternative training pathways to educate surgical technologists are shockingly abbreviated. A 120-hour training course is simply not adequate to educate a surgical technologist. These alternative pathways, both hospital-based and online, do not meet the long established and required curriculum for education of surgical technologists, and are not the answer to alleviate workforce shortages—particularly in a critical patient care area like the operating room.

ARC/STSA has developed a comprehensive outreach program to communicate to our nursing, physician and hospital partners about the critical work performed by our accredited educational programs in surgical technology. Elements of the program emphasize components of accredited education, methods of increasing partnership opportunities between our programs and their clinical partners, outreach opportunities and more. Accredited educational programs in surgical technology have long provided effective education to prepare fully competent entry-level surgical technologists.

Education of the Surgical Technologist

For more than 50 years, the ARC/STSA's accredited educational programs in surgical technology have provided effective education to prepare fully competent entry-level surgical technologists.

Accredited programs provide classroom education, on-campus lab experience, as well as supervised clinical experience. Required didactic coursework includes medical terminology, anatomy and physiology, microbiology, and surgical pharmacology. In accredited programs, students gain a thorough knowledge of the principles of asepsis, surgical procedures, operative technique, surgical instruments and equipment, and principles of patient preparation and care.

Graduates of accredited surgical technology programs can apply their academic preparation and extensive clinical experience in the scrubbing of surgical procedures to immediately assume the full range of responsibilities encompassed by the profession. In fact, surgeons and nurses rely on surgical technologists' vast knowledge of the sterile operating room environment.

Employers can be assured that all graduates of programmatically accredited surgical technology programs have experienced consistent and effective academic preparation regardless of the accredited program from which they have graduated. Non-accredited training programs and on-the-job training of surgical technologists do not produce comparably prepared professionals for employment in the operating room venue.

Surgical technology curriculum is developed cooperatively between the primary organizations representing the profession, the Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA), the Association of Surgical Technologists (AST), and the National Board of Surgical Technology and Surgical Assisting (NBSTSA). The most current edition of the *Core Curriculum for Surgical Technology (CCST)* emphasizes critical thinking skills, effective communications, multi-cultural education, and professionalism.

The *Standards and Guidelines for the Accreditation of Educational Programs in Surgical Technology (Standards)*, developed collaboratively by the ARC/STSA, the American College of Surgeons (ACS), AST, and the Commission on Accreditation of Allied Health Education Programs (CAAHEP), constitute the minimum standards of quality used in accrediting programs that prepare individuals to enter the professions of surgical technology or surgical assisting.

All CAAHEP-accredited education programs, by virtue of the *Standards,* are required to utilize the most current edition of the *CCST*. Additional general education, as required by the Standards and defined by the program sponsoring institution, further prepares the graduate for the rigors of the operating room environment.

The ARC/STSA is one of the 25 Committees on Accreditation (CoAs) serving under CAAHEP. CAAHEP's origin began with the American Medical Association Council on Medical Education (CME). The CME developed a rating system of medical schools in 1905 and collaborated with the Carnegie Foundation to conduct a study of the quality of medical education that resulted in the Flexner Report in 1910. From 1935 to 1976, the AMA Council on Medical Education was the agency responsible for accrediting health profession programs in the United States. In 1976, the CME delegated the responsibility and authority for health sciences education accreditation to the newly formed Committee on Allied Health Education and Accreditation (CAHEA). In October 1992, the AMA announced its support for the establishing a new and independent agency to assume the accreditation responsibilities of CAHEA. That new agency, the Commission on Accreditation of Allied Health Education Programs (CAAHEP), was incorporated in May 1994 as a 501(c)(3) tax-exempt organization.

CAAHEP is recognized by the Council for Higher Education Accreditation (CHEA), the only non-governmental higher education organization in the United States that engages in and awards recognition to institutional and programmatic accrediting organization. Much like the accrediting process conducted by CAAHEP, CHEA periodically reviews CAAHEP's effectiveness in assuring and improving quality in higher education. CHEA's recognition of CAAHEP is assurance that CAAHEP is competent to engage in quality review.

CAAHEP accredits more than **2,500** certificate, diploma, associate, bachelor's and master's degree programs at **1,366** sponsoring institutions in the United States and internationally, in **32** health science disciplines/occupations including advanced cardiovascular sonographer, anesthesia technologist, anesthesiologist assistant, art therapist, assistive technology practitioner, cardiovascular technologist, clinical research professional, cytotechnologist, diagnostic medical sonographer, emergency medical services-paramedic, exercise science professional, kinesiotherapist, lactation consultant, medical assistant, medical illustrator, neurodiagnostic technologist, orthotist and prosthetist, perfusionist, polysomnographic technologist, recreational therapist, specialist in blood bank technology, surgical assistant and surgical technologist.

Clinical Resources and Relationships

Critical shortages of surgical technologists have contributed to an increase in hospital-based alternative training as well as abbreviated online training programs, neither of which meet the Standards associated with a fully accredited surgical technology educational program. Some of the alternative training pathways to educate surgical technologists are shockingly abbreviated. A 120-hour training course is simply not adequate to educate a surgical technologist. These alternative pathways, both hospital-based and online, do not meet the long-established and required curriculum for surgical technology education, and are not the answer to alleviate workforce shortages—particularly in a critical patient care area like the operating room.

The program/clinical partnership is vital to providing an effective, high-quality education for the surgical technologist. While accredited programs are dependent on clinical relationships to meet the curriculum requirements defined by the *Standards*, clinical affiliates are also dependent upon the educational program for access to quality entry-level surgical technologists. The relationship is symbiotic; one cannot exist without the other.

On average, CAAHEP-accredited surgical technology programs graduate approximately 6,000 new surgical technologists during the ARC/STSA reporting year (August 1- July 31). Assuming 80% graduate placement (ARC/STSA required threshold), approximately 4,800 newly graduated surgical technologists enter the workforce annually.

Beginning in 2020, the pandemic temporarily interrupted the normal flow of accredited program graduates entering the workforce. Program data for 2020 and 2021 saw decreased cohort starts, decreased enrollments per cohort, and delayed graduations. The result? Hospital-based training efforts and truncated online training programs.

The below concepts and strategies based upon the CAAHEP *Standards* may assist in opening a dialogue with clinical affiliates on partnering to address the current shortage of surgical technologists.

1. **Employer Sponsoring of Employees – Paid Student Clinical Experience – Career Pathways**

   Accreditation *Standards* do not prohibit paid clinical experience for students enrolled in CAAHEP-accredited surgical technology programs.

   Standard V. Fair Practices C. Safeguards
   The health and safety of patients/clients, students, faculty, and other participants associated with the educational activities of the students must be adequately safeguarded. Surgical Technology students must be readily identifiable as students.

All activities required in the program must be educational and students must not be substituted for staff.

Clinical partners may be motivated to work with the program related to paid clinical rotations, particularly if they are sponsoring employees through the surgical technology program. Paid clinical experience:

- Can lead to better student performance in the clinical setting.
- Increases the return on investment for the clinical partner.
- Can contribute to surgical staff investment in the student's clinical experience.
- Provides for "pay for work" contracts with students to improve employee longevity.
- Allows the employer to provide these future surgical technologists more cases in a specialty area where new hires will be needed, in addition to their required cases.

Development of career pathways by the clinical partner, and participation in that process by the program, is another opportunity to collaborate with clinical partners in addressing their surgical staffing needs. Like surgical technology, there is an ongoing need for operating room registered nurses, recently exacerbated by the same variables effecting the surgical technologist shortage. Surgical and surgical support services lend themselves to progressive career pathways. Central Service to Surgical Technology to Surgical Nursing and beyond not only incentivizes the individual pursuing career advancement, but also fulfills the employer's need for well-educated and oriented staff. Education in sterile processing supplements education in surgical technology, and that education provides the operating room competencies necessary for the registered nurse in the operating room.

2. Expansion of the Program Advisory Committee (PAC)

Accreditation *Standards* do not prohibit the program from exceeding the minimum criteria for required PAC members.

Standard II. Program Goals B. Program Advisory Committee (PAC)

The program advisory committee must include at least one representative of each community of interest and must meet annually. Communities of interest served by the program include, but are not limited to, students, graduates, faculty members, sponsor administrators, employers, physicians, and the public.

The program advisory committee advises the program regarding revisions to curriculum and program goals based on the changing needs and expectations of the program's communities of interest, and an assessment of program effectiveness, including the outcomes specified in these Standards.

Program advisory committee meetings may be conducted using synchronous electronic means.

Expansion of PAC membership to include additional employer representatives allows for participating employers to have input into the educational program, in particular the clinical rotation process. This is a clear advantage for the clinical partner and can strengthen the program/clinical relationship allowing for increased clinical availability, student performance incentives, and improved outcomes and placement.

3. Expanded Clinical Resources/Accelerated Clinical Rotations

Clinical resources are required by *Standards* and are an opportunity for the clinical partner to have significant influence in the education of the surgical technology student.

4. Recruitment of Clinical Partners

The current shortage of surgical technologists provides an opportunity to access prospective clinical partners not currently serving as an affiliate of the program.

Standard III. Resources A. Type and Amount

Program resources must be sufficient to ensure the achievement of the program's goals and outcomes. Resources must include, but are not limited to:

1. **Faculty.**
2. **Administrative and support staff.**
3. **Curriculum.**
4. **Finances.**
5. **Faculty and staff workspace.**
6. **Space for confidential interactions.**
7. **Classroom and laboratory (physical or virtual).**
8. **Ancillary student facilities.**
9. **Clinical affiliates.**
10. **Equipment.**
11. **Supplies.**
12. **Information technology.**
13. **Instructional materials; and**
14. **Support for faculty professional development.**

Opening a dialogue with your clinical partners experiencing workforce shortages of surgical technologists about expanding clinical resources and/or accelerating clinical rotations can accomplish several objectives for both the program and the clinical partner. Expanded

resources and/or accelerated clinicals can allow the program to increase student enrollment, dependent on availability of didactic and lab resources. Increased enrollment ultimately provides more options for the clinical partner as an employer of program graduates. Clinical partners further benefit from accelerated rotations in that students can complete clinical rotations in a shorter time period, allowing for earlier employment.

Staffing shortages make the current environment optimal for clinical partner recruitment. Use program outcomes data to emphasize the success of your program and graduates. Graduates in non-affiliated partners can be emissaries for your program. Invite surgical department administrators to a program open house, using your Program Advisory Committee (PAC) as a resource. Invite dialogue with prospective affiliates on their needs and include school administration to emphasize the program's commitment to the prospective affiliate.

5. Program/Clinical Partnerships in Student Evaluation

Evaluation of students in the clinical area is required by the Standards.

Standard IV. Student and Graduate Evaluation/Assessment A. Student Evaluation

1. Frequency and purpose

Evaluation of students must be conducted on a recurrent basis and with sufficient frequency to provide both the students and program faculty with valid and timely indications of the students' progress toward and achievement of the curriculum competencies in the required learning domains.

Validity means that the evaluation methods chosen are consistent with the learning and performance objectives being tested.

The evaluation system should document each student's knowledge, performance-based strengths and areas needing improvement.

The documentation should include a plan for routine communication, a copy of all forms used in communicating, a description of how the department and institution handles problem or failing students, and student evaluation of the communication process.

2. Documentation

Student evaluations must be maintained in sufficient detail to document learning progress and achievements.

Securing sufficient program resources related to clinical evaluation of students is challenging under the best of circumstances. Expansion of student clinical resources/accelerated rotations may require additional program staff to effectively assess student progress through the clinical process. Optimally program administration (institution administration) will provide program staff resources as student numbers increase clinically.

Clinical partners share in the responsibility of student evaluation as well. Partnering in developing clinical preceptors (surgical staff) to serve as both surgical and program staff for evaluation purposes would effectively address accreditation requirements for student evaluation. Clinical preceptors serving in this role could receive additional compensation from the employer, the program, or via a shared relationship. The clinical partner benefits from increased student numbers in clinical rotations and the clinical staff benefits from incentives to serve in the preceptor role.

Please contact the ARC/STSA to discuss your specific program needs related to your clinical partnerships.

Accelerated Degree Track (ADT) in Surgical Technology

Educational institutions with CAAHEP-accredited surgical technology programs may provide options for students to complete a surgical technology program and enter the workforce earlier to assist in fulfilling the gap for qualified, credentialed surgical technologists. The options below are three possible models of accelerated completion tracks for consideration by CAAHEP-accredited surgical technology programs. Institutions considering additional options and/or requesting further information can contact the ARC/STSA at info@arcstsa.org.

Option One

Suggested Student Requirements:

1. Enroll as a full-time student.
2. Complete all college general education requirements for the surgical technology degree prior to being admitted to the program.
3. Complete core surgical technology curriculum content in the accelerated format (if not part of general education requirements).
4. Sit for NBSTSA certification examination at conclusion of the accelerated program.

Delivery model options:

1. Hybrid format (didactics online or in person, labs and clinicals in person), or
2. In-person format for all courses.

Institutional Requirements:

1. Discuss ADT option with communities of interest.
2. Develop a plan of study for an ADT option.
3. Submit a distance education application as needed for coursework delivered in a distance education modality (refer to ARC/STSA Distance Education Policy).
4. Meet or exceed the current CAAHEP accreditation Standards for surgical technology programs (Standards I – V) and maintain supporting documentation.

Option Two

Suggested Student Requirements:

1. Enroll as a full-time student.
2. Complete core surgical technology curriculum content in the accelerated format (if not part of general education requirements).
3. Complete all college general education requirements for the surgical technology degree after surgical technology courses.
4. Complete NBSTSA certification examination at conclusion of the core surgical technology curriculum content (results may not be released until after program completion).

Delivery model options:

1. Hybrid format (didactic online or in person, labs and clinicals in person), or
2. In-person format for all courses.

Institutional Requirements:

1. Discuss ADT option with communities of interest.
2. Develop a plan of study for an ADT program.
3. Submit a distance education application as needed for coursework delivered in a distance education modality (refer to ARC/STSA Distance Education Policy).
4. Meet or exceed the CAAHEP accreditation Standards (Standards I – IV) for surgical technology programs and maintain supporting documentation.

Option Three

Suggested Student Requirements:

1. Enroll as a full-time student.
2. Complete all college general education requirements for the surgical technology degree in conjunction with surgical technology courses in an accelerated format.
3. Sit for NBSTSA certification examination at conclusion of the entire program (including general education requirements).

Delivery model options:

1. Hybrid format (didactic online or in person, labs and clinicals in person), or
2. In-person format for all courses.

Institutional Requirements:

1. Discuss ADT option with communities of interest.
2. Develop a plan of study for an ADT program that includes both core surgical technology courses and general education requirements.
3. Submit a distance education application as needed for coursework delivered in a distance education modality (refer to ARC/STSA Distance Education Policy).
4. Meet or exceed the CAAHEP accreditation Standards (Standards I – IV) for surgical technology programs and maintain supporting documentation.

An example of a plan of study for option 1 and option 2 is included on the following pages.

Plan of Study Example: (topics illustrate the core curriculum components in each course)

Semester One	Semester Two	Semester Three
Course 1 (didactic) includes the following topic(s): 1. *Medical terminology*	**Course 1 (lab) includes the following topics:** *1. Asepsis and sterile technique (didactic component of lab)* *2. Instrumentation identification, including specialty instruments* *3. Equipment (OR furniture, basic equipment)* *4. Lab skills assessments including:* • *Preoperative case management* • *Intraoperative case management* • *Postoperative case management* • *Sterile processing* • *Assistant circulator role* • *Skills applications not covered elsewhere*	**Course 1 (didactic) includes the following topics:** *1. Surgical procedures by specialty –**** • *General surgery* • *Genitourinary* • *Obstetrics and gynecology* • *Orthopedic* • *Otorhinolaryngologic* • *Plastic and reconstructive* • *Ophthalmic* • *Oral and maxillofacial* • *Neurosurgery* • *Peripheral vascular* • *Cardiothoracic* *2. Interventional Radiology Applications* **** Included in these procedures is the anatomy and physiology, pathophysiology, diagnostic tests, and pharmacology (medications used in surgery), specialty equipment, and specialty supplies from the core curriculum related to each specialty.*

Course 2 (<u>didactic</u>) includes the following topics: *1. Professional management* *2. Communication* *3. Teamwork* *4. Conflict resolution* *5. Ethical and moral issues* *6. Legal issues and risk management* *7. HCF organization and management* *8. Information technology* *9. Physical environment* *10. Surgical attire* *11. All-hazards preparation* *12. Needs of the patient* *13. Death and dying* *14. Management and leadership* *15. Employability skills*	**Course 2 (<u>didactic</u>) includes the following topics**: 1. *Electricity* *2. Lasers* *3. Minimally invasive applications* *4. Establishing the sterile field* *5. Hand hygiene and surgical scrub* *5. Gowning and gloving* *6. Surgical counts* *7. Draping* *8. Perioperative documentation* *9. Physical preparation of the patient* *10. Patient ID and time out* *11. Management of the sterile field* *12. Specimen care and handling* *13. Application of dressings* *14. Breakdown of the sterile field* *15. PACU* *16. Disinfection of the surgical environment* *17. Assistant circulator duties*	**Course 2 (<u>clinical</u>) includes the following topics:** *1. Surgical case rotation requirements* *2. Skills applications not covered elsewhere*
Course 3 (<u>didactic</u>) includes the following topics: *1. Anesthesia and pharmacology (except medications used in surgery)* *2. Instrumentation concepts* *3. Equipment* *4. Supplies (basic)* *5. Microbiology (if not included as a gen ed)* *6. Sterile processing* *7. Wound management* *8. Surgical incisions and wound exposure* *9. Hemostasis*		

Apprenticeships: Creating Curriculum Models that Meet Demands of Workforce, While Maintaining Accreditation Standards to Ensure Student Needs are Met

The buzz word in health profession education for 2022 seems to be “apprenticeship”. Due to nationwide shortages of health professionals, our healthcare systems are in a crisis. U.S. Department of Labor grants such as Youth Build, Apprenticeship Building America (ABA) Grant Program, and Strengthening Community Colleges Training Grants are providing funding for creative ways to alleviate the shortage. This has led to conversations around and development of creative pathways into health professions with the assistance of the Department of Labor-Workforce Development. The goal for many of these grants is for employers and education providers to work collaboratively to meet the demands of the current healthcare system.

Apprenticeship is a term often associated with skilled crafts and trades industries and often avoided by health professions, but examples of successful apprenticeship programs that meet academic educational and existing accreditation standards are being seen across the country. In Texas, the State Board of Nursing has approved the term “apprenticeship” to be used for nursing programs allowing student nurses to be paid by a hospital organization while completing their coursework towards their nursing degree. In Louisiana and Minnesota, similar programs are in place to aid in closing the gap in the shortage of surgical technologists while maintaining the educational standards of accreditation. Maintaining programmatic accreditation validates excellence and ensures quality patient care, and allows students to sit for National Board of Surgical Technology and Surgical Assisting (NBSTSA) Certified Surgical Technologist (CST) certification, which is recognized and transferable across the United States.

According to the U.S. Department of Labor, an apprenticeship is a “competency-based occupational framework (CBOF)” used for training and education, which is something that the surgical technology education community has had in place for decades through simulation and lab and clinical education. In fact, surgical technology programs accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) incorporate the basic components of a Registered Apprenticeship and have been validated through established standards and assessment.

A “Registered Apprenticeship is an industry-driven, high-quality career pathway where employers can develop and prepare their future workforce, and individuals can obtain paid work experience, receive progressive wage increases, classroom instruction, and a portable, nationally-recognized credential,” as defined by U.S. Department of Labor.

The U.S. Department of Labor or a State Apprenticeship Agency approves and validates Registered Apprenticeships and indicates the Registered Apprenticeship model must incorporate the following components that align directly with CAAHEP Standards. This demonstrates that the CAAHEP-accredited surgical technology program meets and exceeds the requirements of the Registered Apprenticeship.

Core Components of Registered Apprenticeship	**CAAHEP Standards and Guidelines for Surgical Technology**
Employer Participation	Standard II.B. Program Advisory Committee
Structured On-the-Job Learning (OJL) Program length based on national industry standards; typically a year or more with at least 6 months OJL	Standard III.C. Curriculum (6.f.vi.c. Perioperative Case Management: Surgical Rotation Case Requirements)
Educational Classroom Instruction Progressing to Proficiency	Standard III.C. Curriculum
Paid Experience Increase in skills and competencies tied to increased earnings	Standard V.C. Safeguards
Quality and Safety	Standard V. Fair Practices Standard V.C. Safeguards
Diversity	Standard V.B. Lawful and Non-discriminatory Practices
National Credential Gain a nationally recognized, portable credential upon completion.	Standard IV.B. Outcomes - The program must meet established outcomes thresholds, including sitting for the National Board of Surgical Technology and Surgical Assisting CST® certification examination.

The national industry standards used to measure CAAHEP-accredited surgical technology programs were developed and adopted by experts involved in the profession in 1972. Those experts include members of the American College of Surgeons (ACS), American Medical Association (AMA), Association of Surgical Technologists (AST) and Accreditation Review Council on Education in Surgical Technology and Surgical Assisting (ARC/STSA). The standards reflect

what an individual needs to know and be able to do to meet industry standards within the profession with the goal of patient safety.

Registered Apprenticeships can provide an alternate pathway for the profession of surgical technology when the curriculum is developed with the goal of patient safety. It can also help attain alternate sources of funding to support training initiatives.

It is advisable for programs to explore creative pathways while maintaining standards already in place. Having an apprenticeship framework established can prevent the need for hospitals to develop duplicate training programs that are not based on professional standards. For more information about establishing a registered apprenticeship in your area, contact your State Apprenticeship Agency representative. State Apprenticeship agencies are in place to answer questions, provide guidance on program development, connect programs with clinical affiliates, and provide advice on funding sources to support programs.

Competency-Based Education (CBE)

Competency-based learning or competency-based education is a framework for teaching and assessment of learning. It is also described as a type of education based on predetermined "competencies," which focuses on outcomes and real-world performance. Competency-based learning is sometimes presented as an alternative to traditional methods of assessment in education.

In a competency-based education framework, students demonstrate their learned knowledge and skills to achieve specific predetermined "competencies." The set of competencies for a specific course or at a specific educational institution is sometimes referred to as the *competency architecture*. Students are generally assessed in various competencies at various points during a course, and usually can attempt a given competency multiple times and receive continuous feedback from instructors.

Key concepts that make up the competency-based education framework include demonstrated mastery of a competency, meaningful types of assessment, individualized support for students, and the creation and application of knowledge.

In a competency-based learning model, the instructor is required to identify specific learning outcomes in terms of behavior and performance, including the appropriate criterion level to be used in evaluating achievement. Experiential learning is also an underpinning concept; competency-based learning is learner-focused and often learner-directed.

The methodology of competency-based learning recognizes that learners tend to find some individual skills or competencies more difficult than others. For this reason, the learning process generally allows different students to move at varying paces within a course. Additionally, where many traditional learning methods use summative testing, competency-based learning focuses on student mastery of individual learning outcomes. Students and instructors can dynamically revise instruction strategies based on student performance in specific competencies.

What it means to have mastered a competency depends on the subject matter and instructor criteria. In abstract learning, such as algebra, the learner may only have to demonstrate that they can identify an appropriate formula with some degree of reliability; in a subject matter that could affect safety, such as operating a vehicle, an instructor may require a more thorough demonstration of mastery.

ARC/STSA is currently assessing competency-based education models and exploring how CBE curriculum delivery will work in conjunction with CAAHEP accreditation Standards for surgical technology programs.

ARC/STSA Outreach Summary

With the onset of the pandemic in early 2020, the surgical technology education community demonstrated remarkable adaptability and resilience to ongoing challenges in program enrollment, curriculum delivery, and graduation of competent entry-level surgical technologists.

As the acuity of the pandemic subsided in early 2022, new challenges arose—decreased enrollments, smaller graduating classes, loss of surgical technologists from the profession—all leading to an unprecedented employment crisis. The lessons learned from this series of events are unmistakable. We can never take for granted our roles in the education of surgical technologists and must work constantly to assure the presence of accredited program graduates in surgical patient care.

From the totality of these circumstances, the ARC/STSA has synthesized the lessons learned to develop a comprehensive outreach program to communicate to our nursing, physician and hospital partners about the critical work performed by our accredited educational programs in surgical technology. Elements of the program emphasize components of accredited education, methods of increasing partnership opportunities between our programs and their clinical partners, outreach opportunities and more. Accredited educational programs in surgical technology have long provided effective education to prepare fully competent entry-level surgical technologists.

As we continue into 2023 and beyond, ARC/STSA is committed to ongoing outreach to support our programs, educators, students, graduates, and ultimately the surgical patient. Every surgical patient deserves care from a credentialed surgical technologist who graduated from a CAAHEP-accredited educational program. National efforts will include education of our surgical partners in nursing and medicine, hospital administration, and regulatory agencies. We will continue to serve our community through participation in state assembly and state educator meetings, as well as providing updated resources to our education community. We will expand our partnerships with higher education and accreditation associations, and be an active voice in supporting our educational programs in those communities. We are grateful for our partnership with our programs and remain committed to their remarkable efforts in the education of the surgical technology professional.

Resources

Accreditation Review Council on Education for Surgical Technology and Surgical Assisting (ARC/STSA) - https://arcstsa.org/

- Standards, Curricula, Best Practice Guide

American College of Surgeons (ACS) - https://www.facs.org/

- Statement on Surgical Technology Education and Credentialing https://www.facs.org/about-acs/statements/surgical-technology-training-and-certification/

Association of Surgical Technologists (AST) - https://www.ast.org/

- House of Delegates Resolution on the Associate Degree https://www.ast.org/uploadedFiles/Main_Site/Content/About_Us/Resolution_Associate_Degree.pdf

Commission on Accreditation for Allied Health Education Programs (CAAHEP) - https://www.caahep.org

Competency-Based Education Network (C-BEN) - https://www.c-ben.org/

Council on Higher Education Accreditation (CHEA) - https://www.chea.org/

Healthcare Career Advancement Program (H-CAP) - https://www.hcapinc.org/

National Career Pathway Network (NCPN) - https://www.ncpn.info/

United States Department of Education (USDOE) - https://www.ed.gov/

United States Department of Labor (USDOL) - https://www.dol.gov/

United States Department of Labor ApprenticeshipUSA - https://www.apprenticeship.gov/