



ASATT Approval Process for Educational Programs in Anesthesia Technology

Adopted by the:
American Society of Anesthesia Technologists and Technicians
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These Standards and Guidelines are to be used for the development and analysis of Anesthesia Technology programs. Education and Certification committee review teams assist in the evaluation of a program's relative compliance with the Approval Standards. Further, the goal of this document is to facilitate the transition to Anesthesia Technologist programs, by July 15, 2015.

Description of the Profession:

Anesthesia technology is an allied health profession specifically focused on fundamental and advanced clinical procedures which assist the anesthesia provider in the safe and efficient care of patients undergoing anesthesia. The Anesthesia Technologist/Technician works under the direction of an anesthesia provider as a vital member of the anesthesia care team. The Anesthesia Technologist/Technician is proficient in the acquisition, preparation, and application of various types of equipment required for the delivery of anesthesia care. Cognitive skills involve data measurement, professionalism for patient and staff interactions, and knowledge of anatomy/physiology, pathophysiology, pharmacology, and advanced principles of anesthesia technology. Independent judgment is required for rapid response to the quickly changing circumstances in the patient care environment.

Anesthesia Technologists/Technicians may work in a variety of clinical settings including: hospital operating rooms, interventional and diagnostic radiology, labor and delivery units, intensive care units, emergency rooms, outpatient procedure suites, and ambulatory surgery centers.

Educational Institution

An institution must be a post-secondary academic institution accredited by an institutional accrediting agency that is recognized by the U.S. Department of Education, and must be authorized under applicable law or other acceptable authority to provide a post-secondary program. Preferentially, a minimum of an Associate Degree will be awarded at the completion of the program. The Institution must assure that the provisions of the Standards and Guidelines are met.

Program Goals and Outcomes

There must be a written statement of the program's goals and educational processes consistent to the needs and expectations from the communities of interest served by the Anesthesia Technology program. The communities of interest that are served by the program must include students, graduates, employers, physicians and the public.

Program-specific statements of goals and educational processes are the basis for program planning, implementation, and evaluation. Such goals and educational processes must be compatible with both the mission of the educational institution, the expectations of the communities of interest, and standard roles and functions. Goals and educational processes are based upon the substantiated needs of the anesthesia providers and meet the educational needs of students served by the educational program.

Program Goals and Expectations

Programs must regularly assess its goals and educational processes, and be prepared to respond to changes in the needs and expectations of the community.

An advisory committee, which is representative of each of the communities of interest, must meet, at least annually, to assist program personnel in formulating and periodically revising the educational program. The advisory committee monitors the needs and expectations of the community, ensuring program responsiveness to change.

The advisory committee may meet face to face, by conference call or by electronic means. Minutes from the meeting will be maintained and available for review upon request from ASATT. The program must have the following goals as the minimum expectations:

“To prepare competent entry-level Anesthesia Technologists/Technicians to meet the needs of the communities in which they are employed.”

Satisfactory records must be maintained regarding student admissions, counseling, and evaluations. Grades and credits for courses must be recorded on the student transcript and permanently maintained by the program in an accessible location.

Faculty and Staff

The Educational program must appoint sufficient faculty and staff with the necessary qualifications to achieve the program's stated goals and outcomes.

Programs must include:

1. A Program Director; to assure achievement of the program's goals and outcomes, and is responsible for all aspects of the program, including the organization, administration, review, planning, development, clinical phases, and general effectiveness of the program. The Program Director must possess a higher level of education and/or professional experience than that for which the students in the program are being prepared.
2. A Medical Advisor; the Medical Advisor provides the necessary input to ensure that the medical components of the curriculum meets current standards of medical practice.
3. Faculty and Instructional Staff; in classrooms, laboratories, and all clinical facilities where a student is assigned, there must be qualified individuals clearly designated as liaisons to the program to provide instruction, supervision, and timely assessments of the student's progress in meeting program requirements. All instructional staff should be familiar with the goals of the program and be able to develop a plan of instruction and evaluation. Preceptors are informed of the expectations of the program to facilitate an optimal training experience for the students. Instructors must possess appropriate credentials and knowledge in subject matter by virtue of training and experience, in teaching their assigned subjects. Faculty should include specialists trained in the anesthesia discipline.

Curriculum

The curriculum must ensure the achievement of the program goals. Instruction must be an appropriate sequence of classroom, laboratory and clinical activities. Instruction must be based on clearly written course syllabi that include course description, course objectives, methods of evaluation, topic outline and competencies required for graduation. A variety of instructional methods should be employed, including instructor lead presentations and demonstrations, interactive experiences, laboratory experiences and supervised clinical experiences.

The curriculum should include at least the three major areas of:

1. Basic units of instruction
2. Anesthesia Technology specific units of instruction
3. Clinical instruction

Student and Graduate Evaluation/Assessment

Evaluation of students must be conducted on a recurring basis 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 competencies and educational goals stated in the curriculum. Records of student evaluations must be maintained to document learning progress and achievements.

1. The program must periodically assess its effectiveness in achieving its stated goals. Results of this evaluation must be reflected in the timely revision of the program. Outcomes assessment includes: ASATT's national credentialing examination performance, program retention and attrition, graduate satisfaction and job placement, positive placement, meaning the graduate is employed full or part-time in a related field.
2. Outcomes Reporting: The program must periodically submit outcomes and appropriate action plans based on the outcomes assessment analysis.
 - A. Programs not meeting the required outcomes must begin a dialogue with the ASATT Programs/Education Committee to develop an appropriate plan of action in response to the identified shortcomings.

Substantial Change to Programs

The Program Director must report substantial changes to the program, within 90 days of the planned occurrences. Substantial changes include:

1. Changes to the institution's mission or objectives, if these will affect the program.
2. The addition or deletion of courses that represent a change in content.
3. The award level, degree or certificate.
4. Clock hours to credit hours or vice versa.
5. Substantial increase or decrease in clock or credit hours for successful completion of a program.

Fair Practices

All applicants and students must have access to the following information:

1. The institutional and programmatic approval status.
2. The admissions policies and practices
3. Policies for advanced placement, transfer of credits, and credits for experiential learning.
4. Credits required for completion of the program.
5. All fees, tuition and associated costs required to complete the program.
6. Academic calendar.
7. Criteria for completion of curriculum and graduation.
8. Policies regarding withdrawal and refund of fees and tuition.
9. All catalogs, publications and advertising must reflect the program, accurately.



ASATT National Standard Curriculum In Anesthesia Technology

Objectives

To provide a standard curriculum for the advancement of professionalism in the Anesthesia Technology practice.

1. Establish the process to substitute on the job training for Anesthesia Technology, as a qualification for the National Board Exam.
2. To be recognized as a technically skilled and educated anesthesia professionals.
3. Exemplify the role of the Anesthesia Technologist in support of the anesthesia provider by adhering to nationally accepted professional responsibilities as a member of the anesthesia care team.
4. Provide an approved curriculum for colleges, which educates to the standard of practice.
5. Provide health care facilities with clinically and technically competent, Anesthesia Technologists/Technicians.
6. Demonstrate safety of self and others, and adhere to safety procedures throughout delivery of anesthesia care.

Minimum Entry Requirements for Students:

1. Graduation from an accredited high school or equivalent.
2. Overall minimum GPA of 2.0 in all required prerequisite courses.
3. Overall minimum GPA of 2.5 in Science and Math prerequisite courses.
4. Current CPR or Basic Cardiac Life Support certificate, a criminal background check, and appropriate health clearance.

General Content Areas

Must be designed to include all coursework necessary to achieve an Associate of Science Degree and/or Certificate of Achievement at the institution where a program will be accredited.

Courses will include:

1. English
2. Speech
3. Humanities
4. Psychology, Sociology or History
5. Mathematics
6. Anatomy and Physiology
7. Chemistry
8. Electives

In addition Medical Terminology and Physical Education are recommended.

Each educational institution will determine whether the General Education component should be included into the professional curriculum or required prior to entry into the program.

Professional Curriculum Components

The following content areas related to Anesthesia Technology must be covered in the curriculum.

1. Introduction to Anesthesia Technology.
 - A. Role of the Anesthesia Care Team
 - B. Scope of practice and specific duties of the Anesthesia Technologist.
 - C. Policies and Standards of patient care practice.
2. Basic and Advanced Principles for Anesthesia Technology.
 - A. Set-up and function of basic equipment for anesthesia care.
 - B. Anesthesia machine checkout.
 - C. Hemodynamic monitoring.
 - D. Types of Anesthesia.
 - E. Functioning as a member of the Anesthesia Care Team.
 - F. Visit to clinical site.
 - G. Advanced equipment for anesthesia care.
3. Anesthesia Pharmacology.
 - A. Intravenous therapy.
 - B. Emergency medications.
4. Anesthesia Instrumentation (Lab).
 - A. Hemodynamic monitoring equipment; function, application and troubleshooting.
 - B. Invasive and non-invasive.
 - C. Emergent and non-emergent.
 - D. Advanced knowledge of Anesthesia machine.
 - E. Intubation equipment.
 - F. Emergency intubation techniques and equipment.
 - G. Set-up and use of complex Anesthesia equipment.
 - H. Diagnosis and minor repair of Anesthesia equipment for proper function and maintenance.
 - I. Cleaning and documentation.
 - J. Safety
 - K. Asepsis
 - L. Policies and Standards.
 - M. Quality assurance and process improvement.
 - N. Regulatory Associations and credentialing.
 - O. Researching future technologies.
5. Clinical Experience
 - A. Demonstrate clinical application of basic skills acquired from previous didactic coursework in the patient care setting.
 - B. Clinical rotations are done under the direct supervision of an Anesthesia provider, or Senior/Lead Anesthesia Technologist/Technician.
 - C. Staff assigned as preceptors to students should attend a "Preceptors training session".
 - D. Student will progress to independently set-up, and/or assess efficacy of equipment, medications, and technique.
 - E. Student will evaluate the circumstance of the patient, consult with the Anesthesia provider and assist in the care of the patient.
 - F. Clinical rotations will be scheduled in order to build upon previous didactic and clinical knowledge.
6. In the patient care setting, the student will progressively demonstrate their ability to function as a member of the Anesthesia Care Team.
 - Including:
 - Interaction with vendors.
 - Interaction with other departments.
7. Capstone Project
 - A. Student will discuss clinical scenarios and form patient care plans.
 - B. Possess critical thinking skills in caring for the anesthesia patient.
 - C. Possess ability to effectively collaborate with the anesthesia care team.
 - D. Review Anesthesia Technologist career opportunities.
 - E. Prepare for the ASATT exam.

Instructional Requirements

1. Didactic: 800 hours
2. Clinical: 800 hours
 - Lab Hours to be included in Clinical and/or Didactic, as appropriate.
3. Total Minimum Didactic and Clinical Hours required for AS Degree
 - 1600 Hours

Alternatively

1. Pre-requisite Courses (General Education) for AS Degree: 30 Units
2. Anesthesia Technology Courses (Certificate of Achievement): 30 Units
3. Minimum required for completion
 - 60 Units total

Anesthesia Technologist Terminal Student Learning Outcomes

1. Maintains vigilance and patient safety throughout the peri anesthetic continuum, by actively protecting patients from iatrogenic complications, and utilizes appropriate precautions in infection control.
2. Collaborates with the anesthesia multi-disciplinary care team in the development of an anesthesia plan of care for patients in areas, to which they are assigned, subsequently assists the anesthesia provider in a variety of current anesthesia techniques, and use of equipment for providing anesthesia. Provides support for anesthesia services to all patients and types of anesthesia, including trauma and emergency cases.
3. Conducts a comprehensive and appropriate equipment check. Identifies and takes appropriate action when confronted with anesthetic equipment-related malfunctions and maintains service records.
4. Uses critical thinking skills in assisting the anesthesia provider with patients of all types, ages and physical conditions for a variety of surgical and medically related procedures.
5. Sets up and calibrates equipment, and understands data obtained from noninvasive and invasive monitoring modalities.
6. In collaboration with the anesthesia provider recognizes and appropriately responds to anesthetic complications that occur during the perioperative period. Understands the relationship of fluid management and the equipment required.
7. Functions as a resource person for the acquisition, preparation and application of warming, airway and ventilatory equipment.
8. Serves as a member of cardiopulmonary resuscitation team, possesses BLS and ACLS (to be obtained during the program).
9. Participates in quality management activities, and operates within budget limits and cost effectiveness.
10. Functions as a student anesthesia technologist within appropriate professional standards, ethical, and legal requirements, accepts responsibility and accountability while assisting with the delivery of patient care.
11. Demonstrates personal and professional integrity and has the ability to communicate, on a professional level verbally and non-verbally, regarding the delivery of perianesthetic care. Shows respect for human dignity to patients, peers and organizations.
12. Positively influences health care policy decisions and participates in activities, which enhance anesthesia technologist roles in improved patient care and is an advocate for patients, families and communities. Understands the various needs of diverse multi-cultural and complex client populations in the delivery of culturally competent care.

Book List: (Alternative Titles may also be used)

Textbooks or other materials.

- Book 1: Title: Nurse Anesthesia
Author: Nagelhout, John Publisher: Elsevier
- Book 2: Title: Clinical Anesthesiology
Author: Morgan, G. Publisher: McGraw Hill
- Book 3: Title: Anesthesiologist's Manual of Surgical Procedures
Author: Jaffee, R. Publisher: Lippincott
- Book 4: Title: Clinical Anesthesia Procedures of the Massachusetts General Hospital
Author: Hurford Publisher: Lippincott
- Book 5: Title: Pharmacology and Physiology
Author: Stoelting, R. Publisher: ChurchillLivingstone
- Book 6: Title: Understanding Anesthesia Equipment
Author: Dorsch, J & Dorsch, S. Publisher: Lippincott
- Book 7: Title: The MGH Textbook of Anesthetic Equipment
Author: Sandberg, Urman, Ehrenfeld