



Commission on Accreditation of Allied Health Education Programs

Standards and Guidelines *for the Accreditation of Educational Programs in Blood Bank Technology/Transfusion Medicine*

*Essentials/Standards initially adopted in 1971;
revised in 1977, 1983, 1991, 2000, 2004 and 2007*

*Adopted by the
AABB (Association for Advancement of Blood and Biotherapies)
American Society for Clinical Pathology
Committee on Accreditation of Specialist in Blood Bank Technology Schools
and
The Commission on Accreditation of Allied Health Education Programs*

The Commission on Accreditation of Allied Health Education Programs (CAAHEP) accredits programs upon the recommendation of the Committee on Accreditation of Specialist in Blood Bank Technology Schools (CoA-SBBT).

These accreditation **Standards** are the minimum standards of quality used in accrediting programs that prepare individuals to enter the Blood Bank Technology/Transfusion Medicine (BBT/TM) profession. The accreditation **Standards** are the minimum requirements to which an accredited program is held accountable. Guidelines are descriptions, examples, or recommendations that elaborate on the Standards. Guidelines are not required, but can assist with interpretation.

Standards are printed in regular typeface in outline form. *Guidelines* are printed in *italic* typeface in narrative form.

Preamble

The Commission on Accreditation of Allied Health Education Programs (CAAHEP), Committee on Accreditation of Specialist in Blood Bank Technology Schools (CoA-SBBT), the AABB (Association for Advancement of Blood and Biotherapies), and the American Society for Clinical Pathology (ASCP) cooperate to establish, maintain and promote appropriate standards of quality for educational programs in Specialist in Blood Bank Technology/Transfusion Medicine and to provide recognition for educational programs that meet or exceed the minimum standards outlined in these accreditation **Standards and Guidelines**. Lists of accredited programs are published for the information of students, employers, educational institutions and agencies, and the public.

These **Standards and Guidelines** are to be used for the development, evaluation, and self-analysis of Specialist in Blood Bank Technology/Transfusion Medicine programs. On-site review teams assist in the evaluation of a program's relative compliance with the accreditation **Standards**.

Description of the Profession.

Individuals certified as Specialists in Blood Banking by the American Society of Clinical Pathologists (ASCP) are knowledgeable in all aspects of blood banking, transfusion medicine, hematopoietic, cellular and gene therapies, and tissue transplantation. These individuals are subject matter experts on variety of subjects including regulatory and quality systems, genetics, immunology, blood groups, collection and storage of blood and components, donor processing, immune mechanisms, component therapy, transfusion of the newborn, complications of transfusion, general administration, personnel administration, education and automated data processing.

Specialists in Blood Banking serve in many roles within the transfusion medicine field such as regulatory experts, technical/procedural advisors, laboratory administrators, quality assessors and managers, educators within their field for technical and scientific training in blood transfusion medicine and researchers in transfusion medicine.

Certification by the American Society of Clinical Pathologists (ASCP) is required for designation as a Specialist in Blood Banking.

I. Sponsorship

A. Sponsoring Educational Institution

A sponsoring institution must be at least one of the following:

1. A post-secondary academic institution accredited by an institutional accrediting agency that is recognized by the U.S. Department of Education, and authorized under applicable law or other acceptable authority to provide a post-secondary program, which awards a minimum of a certificate at the completion of the program.
2. A hospital, medical center, transfusion service, blood donor center, or branch of the United States Armed Forces that is accredited by AABB, which awards a minimum of a certificate at the completion of the program.

B. Consortium Sponsor

1. A consortium sponsor is an entity consisting of two or more members that exists for the purpose of operating an educational program. In such instances, at least one of the members of the consortium must meet the requirements of a sponsoring institution as described in I.A.
2. The responsibilities of each member of the consortium must be clearly documented as a formal affiliation agreement or memorandum of understanding, which includes governance and lines of authority.

C. Responsibilities of Sponsor

The Sponsor must assure that the provisions of these **Standards and Guidelines** are met.

II. Program Goals

A. Program Goals and Outcomes

There must be a written statement of the program's goals and learning domains consistent with and responsive to the demonstrated needs and expectations of the various communities of interest served by the educational program. The communities of interest that are served by the program include, but are not limited to, students, graduates, faculty, sponsor administration, employers, physicians, and the public.

Program-specific statements of goals and learning domains provide the basis for program planning, implementation, and evaluation. Such goals and learning domains must be compatible with both the mission of the sponsoring institution(s) the expectations of the communities of interest, and nationally accepted standards of roles and functions. Goals and learning domains are based upon the substantiated needs of health care providers and employers, and the educational needs of the students served by the educational program.

B. Appropriateness of Goals and Learning Domains

The program must regularly assess its goals and learning domains. Program personnel must identify and respond to changes in the needs and/or expectations of its communities of interest.

An advisory committee, which is representative of these communities of interest named in these Standards, must be designated and charged with the responsibility of meeting at least annually, to assist program and sponsor personnel in formulating and periodically revising appropriate goals and learning domains, monitoring needs and expectations, and ensuring program responsiveness to change.

C. Minimum Expectations

The program must have the following goal defining minimum expectations: "To prepare competent entry-level Specialists in Blood Bank Technology/Transfusion Medicine (SBBT/TM) in the cognitive (knowledge), psychomotor (skills), and affective (behavior) learning domains."

Programs adopting educational goals beyond entry-level competence must clearly delineate this intent and provide evidence that all students have achieved the basic competencies prior to entry into the field.

Nothing in this Standard restricts programs from formulating goals beyond entry-level competence.

III. Resources

A. Type and Amount

Program resources must be sufficient to ensure the achievement of the program's goals and outcomes. Resources include, but are not limited to: faculty, clerical and support staff, curriculum, finances, offices, classroom, laboratory, and ancillary student facilities; clinical affiliations, equipment; supplies; computer resources, instructional reference materials, and faculty/staff continuing education.

B. Personnel

The sponsor must appoint sufficient faculty and staff with the necessary qualifications to perform the functions identified in documented job descriptions and to achieve the program's stated goals and outcomes.

1. Medical Director or Medical Advisor

- a. Responsibilities: The Medical Director or Medical Advisor of the program must provide competent direction and/or guidance to ensure that the medical components of the curriculum, both didactic and supervised clinical practice, meet current acceptable performance standards.
- b. Qualifications: The Medical Director or Medical Advisor must be a physician with expertise in immunohematology and hemotherapy and licensed to practice medicine in the state in which the program operates. The Medical Director must be a diplomate of the American Board of Pathology in Clinical Pathology or Blood Banking. Other specialization such as the American Board of Internal Medicine or Pediatrics with special competence in immunohematology and hemotherapy and appropriate experience in the field is acceptable. The Medical Director must show evidence of continuing professional growth and involvement in one or more areas related to immunohematology and hemotherapy

2. Program Director

- a. Responsibilities: The Program Director must be responsible for the organization, administration, continuous review, planning, development, and general effectiveness of the program.
- b. Qualifications: The Program Director must be either a physician, a certified Specialist in Blood Banking, administrator, or scientist with expertise in immunohematology and hemotherapy. The Program Director must show evidence of continuing professional growth.

3. Education Coordinator

- a. Responsibilities: The Education Coordinator must provide supervision, administration, and coordination of the instructional staff in the didactic and practical phases of the educational program.
- b. Qualifications: The Education Coordinator must have at least two years experience in a full-service blood bank or transfusion service or the equivalent and have formal experience in education and teaching techniques. The Education Coordinator must have certification as a Specialist in Blood Banking or its equivalent and documented participation in programs that maintain and upgrade professional and instructional abilities.

The positions of Medical Director/Advisor and/or Program Director and/or Education Coordinator may be held by the same person in accordance with the Responsibilities and Qualifications of the applicable Standards.

4. Faculty and/or Instructional Staff

- a. Responsibilities: In each location where a student is assigned for didactic or supervised clinical practice instruction, there must be a qualified individual designated to provide supervision and related frequent assessments of the student's progress in achieving acceptable program requirements.

- b. Qualifications: All instructional staff must show evidence of relevant certification, licensure or equivalent experience in the subject areas. Didactic faculty must be knowledgeable, qualified and must be effective in teaching the subject(s) assigned.

All instructors should have a minimum of one year of experience in their respective area and show involvement in internal and external programs of continuing education.

C. Curriculum

The curriculum must ensure the achievement of program goals and learning domains. 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.

It is recommended that program length be a minimum of 12 consecutive months. Actual length may vary depending on institutional policy or state laws or regulations.

The following content areas represent the required SBBT/TM didactic and supervised clinical practice curriculum. Recommended topics are listed below for each content area.

1. Blood Products

- a. *Recruitment and selection of donors*
 - i. *Routine*
 - ii. *Emergency*
- b. *Blood collection*
 - i. *Allogeneic donors*
 - ii. *Autologous and directed donors*
 - iii. *Therapeutic phlebotomy*
 - iv. *Apheresis*
 - v. *Progenitor cells*
 - vi. *Bone marrow*
 - vii. *Emergency*
- c. *Adverse reactions in donors*
- d. *Testing*
 - i. *Routine*
 - ii. *Confirmatory*
- e. *Donor notification, re-entry and look-back protocols*
- f. *Component preparation including special products*
- g. *Anticoagulants and preservatives*
- h. *Labeling and storage, including properties of stored components*
- i. *Inventory management*
- j. *Transportation*
- k. *Regulatory requirements*

2. Blood Group Systems

- a. *Genetics and inheritance*
 - i. *Modes of inheritance*
 - ii. *Family and population genetics*
 - iii. *Parentage*
- b. *Molecular biology*
- c. *RBC antigens and antibodies*
 - i. *Immunogenicity*
 - ii. *Antigen frequency*
 - iii. *Antibody classes*
 - iv. *Clinical significance*
- d. *Platelet and granulocyte antigens and antibodies*
- e. *HLA*

3. Immunology

- a. *Immune response*
- b. *Immunoglobulins*
- c. *Antigen-antibody interactions*
- d. *Testing methods*
- e. *Complement pathways and biologic properties*

- f. *Immune disorders*
4. **Laboratory Operations**
 - a. *Development and evaluation of new technologies*
 - b. *Laboratory safety*
 - i. *Routine programs and practices*
 - ii. *Emergency procedures*
 - c. *Education and training*
 - i. *Competency evaluation*
 - ii. *Proficiency testing*
 - d. *Independent research*
 - e. *Technical writing*
 - f. *Presentation skills*
 - g. *Administration and management*
 - i. *Human resources*
 - ii. *Financial*
 - iii. *Internal and external role of laboratory in an emergency*
 - h. *Information systems*
 - i. *Ethics and medical/legal considerations*
 - j. *Laboratory math*
 - k. *Quality management*
 - i. *Audits*
 - ii. *Assessments*
 - iii. *cGMPS*
 - iv. *Regulations*
 - v. *SOPs and document management*
 - vi. *Error and accident monitoring*
 - vii. *Risk management*
 5. **Physiology and pathophysiology**
 - a. *Physiology of blood*
 - i. *Composition and function*
 - ii. *Circulation*
 - iii. *Survival and metabolism*
 - b. *Hemostasis and coagulation disorders*
 - c. *Hemolytic disease of the newborn*
 - d. *Anemias*
 - i. *Congenital and acquired*
 - ii. *Immune hemolysis*
 - e. *Transplantation*
 - i. *Solid organ*
 - ii. *Bone marrow and progenitor cells*
 - iii. *Graft v. host disease*
 - f. *Platelet and WBC disorders*
 6. **Serology**
 - a. *Routine tests*
 - i. *Blood grouping tests*
 - ii. *Antibody detection and identification, including clinical significance*
 - iii. *Compatibility tests*
 - iv. *Direct antiglobulin tests*
 - b. *Reagents*
 - i. *Blood grouping sera*
 - ii. *Reagent red cells*
 - iii. *Antiglobulin sera*

- c. *Special techniques*
 - d. *Leukocyte and platelet testing*
 - e. *Quality assurance*
 - i. *Equipment*
 - ii. *Reagents*
 - iii. *Test procedures*
7. **Transfusion Practice**
- a. *Indications for transfusion and component selection*
 - b. *Component therapy*
 - c. *Adverse effects of transfusion*
 - d. *Therapeutic hemapheresis and extracorporeal circulation*
 - e. *Blood administration*
 - f. *Special transfusion situations*
 - i. *Coronary surgery*
 - ii. *Massive transfusion of an individual*
 - iii. *Massive transfusion of a population following a disaster*
 - iv. *Neonatal and pediatric transfusion*
 - v. *Intraoperative blood salvage*
 - vi. *Oncological and transplantation support*
 - g. *Blood substitutes and growth factors*

D. Resource Assessment

The program must, at least annually, assess the appropriateness and effectiveness of the resources described in these standards. The results of resource assessment must be the basis for ongoing planning and appropriate change. An action plan must be developed when deficiencies are identified in the program resources. Implementation of the action plan must be documented and results measured by ongoing resource assessment.

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 competencies and learning domains stated in the curriculum.

2. Documentation

Records of student evaluations must be maintained in sufficient detail to document learning progress and achievements.

B. Outcomes

1. Outcomes Assessment

The program must periodically assess its effectiveness in achieving its stated goals and learning domains. The results of this evaluation must be reflected in the review and timely revision of the program.

Outcomes assessment must include, but are not limited to: the national credentialing examination (ASCP registry exam or equivalent) performance, programmatic retention/attrition, graduate satisfaction, employer satisfaction, job (positive) placement, and programmatic summative measures. The program must meet the outcomes assessment thresholds established by the CoA-SBBT.

Programs that have not graduated a class, or have graduated only one class, may not be able to demonstrate compliance with this Standard. However, mechanisms and tools for conducting ongoing program evaluation and outcomes assessment should be in place.

"Positive Placement" means that the graduate is employed full or part-time in a related field; and/or continuing his/her education; and/or serving in the military.

2. Outcomes Reporting

The program must periodically submit to the CoA-SBBT the program goal(s), learning domains, evaluation systems (including type, cut score, and appropriateness), outcomes, its analysis of the outcomes and an appropriate action plan based on the analysis.

Programs not meeting the thresholds established by the CoA-SBBT must begin a dialogue with the CoA-SBBT to develop an appropriate plan of action to respond to the identified shortcomings.

V. Fair Practices

A. Publications and Disclosure

1. Announcements, catalogs, publications, and advertising must accurately reflect the program offered.
2. At least the following must be made known to all applicants and students: the sponsor's institutional and programmatic accreditation status as well as the name, address and phone number of the accrediting agencies; admissions policies and practices, including technical standards (when used); policies on advanced placement, transfer of credits, and credits for experiential learning; number of credits required for completion of the program; tuition/fees and other costs required to complete the program; policies and processes for withdrawal and for refunds of tuition/fees.
3. At least the following must be made known to all students: academic calendar, student grievance procedure, criteria for successful completion of each segment of the curriculum and graduation, and policies and processes by which students may perform clinical work while enrolled in the program.
4. The sponsor must maintain, and make available to the public current and consistent summary information about student/graduate achievement that includes the results of one or more of the outcomes assessments required in these Standards.

The sponsor should develop a suitable means of communicating to the communities of interest the achievement of students/graduates (e.g. through a website or electronic or printed documents).

B. Lawful and Non-discriminatory Practices

All activities associated with the program, including student and faculty recruitment, student admission, and faculty employment practices, must be non-discriminatory and in accord with federal and state statutes, rules, and regulations. There must be a faculty grievance procedure made known to all paid faculty.

C. Safeguards

The health and safety of patients, students, and faculty associated with the educational activities of the students must be adequately safeguarded.

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

D. Student Records

Satisfactory records must be maintained for student admission, advisement, counseling, and evaluation. Grades and credits for courses must be recorded on the student transcript and permanently maintained by the sponsor in a safe and accessible location.

E. Substantive Change

The sponsor must report substantive change(s) as described in Appendix A to CAAHEP/CoA-SBBT in a timely manner. Additional substantive changes to be reported to the CoA-SBBT within the time limits prescribed include:

1. Significant curriculum revision
2. Mode of delivery

F. Agreements

There must be a formal affiliation agreement or memorandum of understanding between the sponsor and all other entities that participate in the education of the students describing the relationship, role, and responsibilities between the sponsor and that entity.

Appendix A

Application, Maintenance and Administration of Accreditation

A. Program and Sponsor Responsibilities

1. Applying for Initial Accreditation

- a. The chief executive officer or an officially designated representative of the sponsor completes a “Request for Accreditation Services” form and returns it to:

CoA-SBBT
c/o AABB
4550 Montgomery Ave, Suite 700 North Tower
Bethesda, MD 20814-2749

The “Request for Accreditation Services” form can be obtained from the Committee on Accreditation of Specialist in Blood Bank Technology Schools (CoA-SBBT), CAAHEP or the CAAHEP website at <https://www.cognitofrms.com/CAAHEP2/RequestForAccreditationServices>.

Note: There is **no** CAAHEP fee when applying for accreditation services; however, individual committees on accreditation may have an application fee.

- b. The program undergoes a comprehensive review, which includes a written self-study report and an on-site review.

The self-study instructions and report form are available from the Committee on Accreditation of Specialist in Blood Bank Technology Schools (CoA-SBBT). The on-site review will be scheduled in cooperation with the program and CoA-SBBT once the self-study report has been completed, submitted, and accepted by the CoA-SBBT.

2. Applying for Continuing Accreditation

- a. Upon written notice from the CoA-SBBT, the chief executive officer or an officially designated representative of the sponsor completes a “Request for Accreditation Services” form, and returns it electronically or by mail to:

CoA-SBBT
c/o AABB
4550 Montgomery Ave, Suite 700 North Tower
Bethesda, MD 20814-2749

The “Request for Accreditation Services” form can be obtained from the CAAHEP website at <https://www.cognitofrms.com/CAAHEP2/RequestForAccreditationServices>.

- b. The program may undergo a comprehensive review in accordance with the policies and procedures of the CoA-SBBT.

If it is determined that there were significant concerns with the on-site review, the sponsor may request a second site visit with a different team.

After the on-site review team submits a report of its findings, the sponsor is provided the opportunity to comment in writing and to correct factual errors prior to the CoA-SBBT forwarding a recommendation to CAAHEP.

3. Administrative Requirements for Maintaining Accreditation

- a. The program must inform the CoA-SBBT and CAAHEP within a reasonable period of time (as defined by the CoA-SBBT and CAAHEP policies) of changes in chief executive officer, dean of health professions or equivalent position, and required program personnel (Refer to Standard III.B.).
- b. The sponsor must inform CAAHEP and the CoA-SBBT of its intent to transfer program sponsorship. To begin the process for a Transfer of Sponsorship, the current sponsor must submit a letter (signed by the CEO or designated individual) to CAAHEP and the CoA-SBBT that it is relinquishing its sponsorship of the program. Additionally, the new sponsor must submit a “Request for Transfer of Sponsorship Services” form. The CoA-SBBT has the discretion of requesting a new self-study report with or without an on-site review. Applying for a transfer of sponsorship does not guarantee that the transfer will be granted.
- c. The sponsor must promptly inform CAAHEP and the CoA-SBBT of any adverse decision affecting its accreditation by recognized institutional accrediting agencies and/or state agencies (or their equivalent).
- d. Comprehensive reviews are scheduled by the CoA-SBBT in accordance with its policies and procedures. The time between comprehensive reviews is determined by the CoA-SBBT and based on the program’s on-going compliance with the Standards, however, all programs must undergo a comprehensive review at least once every ten years.
- e. The program and the sponsor must pay CoA-SBBT and CAAHEP fees within a reasonable period of time, as determined by the CoA-SBBT and CAAHEP respectively.
- f. The sponsor must file all reports in a timely manner (self-study report, progress reports, annual reports, etc.) in accordance with CoA-SBBT policy.
- g. The sponsor must agree to a reasonable on-site review date that provides sufficient time for CAAHEP to act on a CoA-SBBT accreditation recommendation prior to the “next comprehensive review” period, which was designated by CAAHEP at the time of its last accreditation action, or a reasonable date otherwise designated by the CoA-SBBT.

Failure to meet any of the aforementioned administrative requirements may lead to administrative probation and ultimately to the withdrawal of accreditation. CAAHEP will immediately rescind administrative probation once all administrative deficiencies have been rectified.

4. Voluntary Withdrawal of a CAAHEP- Accredited Program

Notification of voluntary withdrawal of accreditation from CAAHEP must be made by the Chief Executive Officer or an officially designated representative of the sponsor writing to CAAHEP indicating: the desired effective date of the voluntary withdrawal, and the location where all records will be kept for students who have completed the program.

5. Requesting Inactive Status of a CAAHEP- Accredited Program

Inactive status for any accredited program other than one holding Initial Accreditation may be requested from CAAHEP at any time by the Chief Executive Officer or an officially designated representative of the sponsor writing to CAAHEP indicating the desired date to become inactive. No students can be enrolled or matriculated in the program at any time during the time period in which the program is on inactive status. The maximum period for inactive status is two years. The sponsor must continue to pay all required fees to the CoA-SBBT and CAAHEP to maintain its accreditation status.

To reactivate the program the Chief Executive Officer or an officially designated representative of the sponsor must provide notice of its intent to do so in writing to both CAAHEP and the CoA-SBBT. The sponsor will be notified by the CoA-SBBT of additional requirements, if any, that must be met to restore active status.

If the sponsor has not notified CAAHEP of its intent to re-activate a program by the end of the two-year period, CAAHEP will consider this a “Voluntary Withdrawal of Accreditation.”

B. CAAHEP and Committee on Accreditation Responsibilities – Accreditation Recommendation Process

1. After a program has had the opportunity to comment in writing and to correct factual errors on the on-site review report, the CoA-SBBT forwards a status of public recognition recommendation to the CAAHEP Board of Directors. The recommendation may be for any of the following statuses: initial accreditation, continuing accreditation, transfer of sponsorship, probationary accreditation, withhold accreditation, or withdraw accreditation.

The decision of the CAAHEP Board of Directors is provided in writing to the sponsor immediately following the CAAHEP meeting at which the program was reviewed and voted upon.

2. Before the CoA-SBBT forwards a recommendation to CAAHEP that a program be placed on probationary accreditation, the sponsor must have the opportunity to request reconsideration of that recommendation or to request voluntary withdrawal of accreditation. The CoA-SBBT decision is final and CAAHEP will not entertain any appeal on behalf of the program. CAAHEP will notify the sponsor in writing of the CoA-SBBT decision.
3. Before the CoA-SBBT forwards a recommendation to CAAHEP that a program's accreditation be placed on probationary accreditation, the sponsor must have the opportunity to request reconsideration of the recommendation, or to request voluntary withdrawal of accreditation. The CoA-SBBT reconsideration of a recommendation for probationary accreditation must be based on conditions existing both when the committee arrived at its recommendation as well as on subsequent documented evidence of corrected deficiencies provided by the sponsor.

The CAAHEP Board of Directors' decision to confer probationary accreditation is not subject to appeal.

4. Before the CoA-SBBT forwards a recommendation to CAAHEP that a program's accreditation be withdrawn or that accreditation be withheld, the sponsor must have the opportunity to request reconsideration of the recommendation, or to request voluntary withdrawal of accreditation or withdrawal of accreditation application, whichever is applicable. The CoA-SBBT reconsideration of a recommendation of withdraw or withhold accreditation must be based on conditions existing both when the CoA-SBBT arrived at its recommendation as well as on subsequent documented evidence of corrected deficiencies provided by the sponsor.

The CAAHEP Board of Directors' decision to withdraw or withhold accreditation may be appealed. A copy of the CAAHEP "Appeal of Adverse Accreditation Actions" is enclosed with the CAAHEP letter notifying the sponsor of either of these actions.

At the completion of due process, when accreditation is withheld or withdrawn, the sponsor's Chief Executive Officer is provided with a statement of each deficiency. Programs are eligible to re-apply for accreditation for accreditation once the sponsor believes that the program is in compliance with the accreditation **Standards**.

Note: Any student who completes a program that was accredited by CAAHEP at any time during his/her matriculation is deemed by CAAHEP to be a graduate of a CAAHEP-accredited program.