

NAACLS Standards for Doctoral Programs

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The logo for NAACLS features the acronym "NAACLS" in a bold, black, sans-serif font. The letters are set against a light blue, semi-circular gradient background that resembles a rising sun or a lens flare. The letters "N", "A", and "C" are partially obscured by the blue gradient.

National Accrediting Agency
for Clinical Laboratory Sciences

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STANDARDS FOR ACCREDITED DOCTORATE IN CLINICAL LABORATORY SCIENCE (DCLS) PROGRAMS

I. Sponsorship

A. Primary Sponsoring Institution

The sponsor of an educational program must be 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 given the authority to provide doctoral education, with access to a teaching hospital with diagnostic diversity and health care expertise
2. An institution recognized by the national government or a regional/national accrediting agency for higher education of the country in which it is located as a post-secondary academic institution with doctoral degree granting authority. The institution must have access to a teaching hospital with diagnostic diversity and health care expertise (for programs outside of the United States)

B. Consortium Sponsor

A consortium is a separate and distinct entity consisting of two or more members that exists for the purpose of operating an educational program. Where a consortium exists, at least one member of the consortium must meet the requirements of a sponsoring institution specified in I.A. The creation of the consortium must be clearly documented as a formal memorandum of understanding and signed by all members. This document shall contain the following elements:

1. governance of the consortium
2. lines of authority within the consortium for the educational program
3. responsibilities of each member in the delivery of the educational program

C. Multi-location Sponsor

1. A specified campus location of an entity that controls a system of campuses, which is accredited by an institutional accrediting agency that is recognized by the U.S. Department of Education and given the authority to provide doctoral education. The specified campus location delivers the educational program in its entirety and awards a minimum of a certificate at the completion of the program
2. A specified location of an entity that controls a system of hospitals, medical centers, or laboratories accredited by an applicable recognized agency (see Standards Compliance Guide), which awards a minimum of a certificate at the completion of the program

D. Responsibilities of the Sponsor

1. The sponsor has primary responsibility for:
 - a. supporting curriculum planning and course selection by program faculty and staff
 - b. appointing faculty and staff
 - c. maintaining student transcripts permanently
 - d. granting the degree documenting satisfactory completion of the educational program
 - e. receiving and processing applications for admission
 - f. ensuring that appropriate personal safety measures are addressed for students and faculty
 - g. ensuring that all provisions of the Standards are met
 - h. ensuring that graduates of the program have obtained or will obtain an earned doctoral degree, or, for students who hold or complete the required degree, a comparable certificate that meets competencies in cases where the doctoral degree is not a DCLS
 - i. supervising of research efforts
2. The sponsor must ensure that the activities assigned to students in the clinical setting support doctoral level studies

3. There must be documented ongoing communication between the sponsor and its affiliates for exchange of information and coordination of the program
4. The sponsor must have a formal affiliation agreement with all other entities that are involved in the education of the students, which describes
 - a. the relationship
 - b. the roles
 - c. the responsibilities of the sponsor and that entity
 - d. the assurance for completion of students assigned clinical requirements in the event that an affiliation is discontinued
5. The sponsor must have adopted a statement of mission that:
 - a. supports the purpose of the institution(s) sponsoring the program
 - b. provides for a doctoral program and the conduct of research and service activities.

II. Assessment and Continuous Quality Improvement

A. Systematic Assessment

There must be a documented plan for continuous and systematic assessment of the effectiveness of the program.

B. Outcome Measures

Programs must define a set of outcomes as they relate to the sponsor's mission. Outcome measures must be documented, analyzed and used in program evaluation. Outcome measures must be used for ongoing curriculum development and demonstrate the effectiveness of any changes implemented.

III. Resources

A. General Resources

1. The program must demonstrate that the faculty cohort possesses the depth and diversity of expertise and experience necessary to structure, deliver and assess the effectiveness of the program
2. Resources assessment must be part of a continuous program evaluation
3. Resources must be sufficient to allow achievement of program goals

B. Financial Resources

Financial resources for continued operation of the educational program must be sufficient to achieve the program goals.

C. Physical Resources

Physical resources such as facilities, equipment and supplies, information resources, and instructional resources sufficient to achieve the program goals.

D. Institutional Resources

Adequate instructional resources must be available to facilitate each student's attainment of doctoral level competencies as defined in the program's goals.

IV. Students

A. Publications and Disclosures

1. The following must be defined, published, and readily available to prospective and enrolled students:
 - a. program mission statement
 - b. program goals and graduate competencies

- c. program accreditation status including the name, address and contact information for NAACLS
- d. results of the program outcome measures as identified in Standard II.B
- e. list of clinical facilities
- f. admission criteria, including essential functions, advance placement, transfer of credits and credits for experiential learning
- g. list of course descriptions including the number of academic credit hours per course (if appropriate)
- h. names and academic rank or title of the program director and faculty
- i. current tuition and fees including withdrawals and refund policies
- j. policies and processes by which students may perform service work
- k. policies and procedures for:
 - 1. advising and guiding students through the program while maintaining confidentiality and impartiality
 - 2. clinical assignment specifically addressing when placement cannot be immediately guaranteed
 - 3. student grievance and appeals
 - 4. criteria for program completion including probation, suspension, and dismissal; academic calendar
- l. rules and regulations governing acceptable personal and academic conduct, including behavior expectations for clinical experience

B. Student Records

1. The program must maintain student records, conforming to any governmental or sponsor regulations. Examples of records include admission, evaluation, counseling, advising, grades, credits, etc.
 2. The student transcript/student record must be retained permanently by the sponsor and contain at least:
 - a. legal name
 - b. grades and credits
 - c. dates of admission and completion
- C. Health and Safety
1. Health
 - a. The program must provide evidence that the health and safety of students, faculty, and patients during educational activities is safeguarded.
 2. Safety
 - a. The program must provide evidence that each student enrolled has received biohazard and safety training.
- D. Admissions
- All admitted students must have:
1. a minimum of a baccalaureate degree
 2. generalist certification as a Medical Laboratory Scientist/Medical Technologist

V. Operational Policies

Fair Practices

- A. Student recruitment and admission must be non-discriminatory in accordance with existing governmental regulations and those of the sponsor
- B. Faculty recruitment and employment practices must be non-discriminatory in accordance with existing governmental regulations and those of the sponsor
- C. A written record of any formal student complaints and their resolution must be maintained
- D. The granting of the degree must not be contingent upon the student passing any type of external certification or licensure examination
- E. A teach out plan must be developed and submitted to NAACLS within 30 days of the official announcement of the closure of the program
- F. Extracurricular work by students must be noncompulsory
- G. Trainee experiences must be educational and balanced so that all competencies can be achieved. Learning must not be compromised by reliance on trainees to fulfill staffing obligations

VI. Administrative: Maintaining Accreditation/Approval

Program/Sponsoring Institution Responsibilities

Programs are required to comply with administrative requirements for maintaining accreditation, including:

- A. Submitting required documentation, such as the Self-Study Report, an Application for Continuing Accreditation, or a required Progress Report as determined by NAACLS by the established deadline
- B. Paying accreditation fees, as determined by NAACLS
- C. Informing NAACLS of relevant administrative and operational changes within 30 days. This includes changes in program official names, addresses or telephone numbers; affiliates, status (e.g. inactivity, closure) or location, and institution name

- D. Agreeing to a site visit date before the end of the period for which accreditation is awarded
- E. Submitting an assessment report on an annual basis to NAACLS addressing major changes, if any, and program assessment standards (Standard II) by the established deadline date
- F. Completing reports required by NAACLS and returning them by the established deadlines
- G. Verifying compliance with these Standards upon request from NAACLS, which may include submitting to an off cycle site visit

VII. Program Administration

A. Program Director

1. Qualifications

The program director must be a medical laboratory professional who has

- a. a doctoral degree from an accredited institution
- b. ASCP-BOC or ASCPi-BOC generalist certification as a Medical Laboratory Scientist/Medical Technologist
- c. three years of teaching experience
- d. appropriate graduate level teaching experience
- e. knowledge of education methods and administration as well as current NAACLS accreditation procedures and certification procedures

2. Responsibilities

The program director must:

- a. be responsible for the organization, administration, instruction, evaluation, continuous quality improvement, curriculum planning and development, directing other

program faculty/staff, and general effectiveness of the program

- b. provide evidence that s/he participates in the budget preparation process
- c. engage in a minimum of 36 hours of documented continuing professional development every 3 years
- d. be responsible for maintaining NAACLS accreditation of the program
- e. have regular and consistent contact with students, faculty and program personnel

3. Faculty Appointments

The program director must have a continuing faculty appointment(s) at the sponsoring institution(s).

B. Site Program Coordinator (required for multi-location programs only; assigned to each participating site)

1. Qualifications

The site program coordinator must:

- a. have an academic degree appropriate to the program level
- b. hold the same level certification required of a program director
- c. have at least one year of experience in medical laboratory science education

2. Responsibilities

The site program coordinator, when required, is responsible for:

- a. coordinating teaching and clinical education
- b. evaluating program effectiveness

- c. maintaining appropriate communications with the program director

C. Faculty

1. Didactic Instructor Appointments

The program must have qualified faculty/instructors who hold appointments within the educational program (e.g., clinical laboratory scientists/medical technologists, other laboratory professionals at the doctoral level, administrators, managers, and health professionals). The program must ensure and document ongoing professional development of the program faculty/instructors.

a. Qualifications

Faculty/instructors designated by the program must:

- i. demonstrate adequate knowledge and proficiency in their content areas
- ii. demonstrate the ability to teach effectively at the appropriate level

b. Responsibilities

The responsibilities of the faculty/instructors must include:

- i. participation in teaching courses
- ii. evaluation of student achievement
- iii. development of curriculum, policy and procedures
- iv. assessment of program outcomes

2. Clinical Liaison

At least one clinical liaison must be designated at each clinical site affiliated with the program to coordinate clinical experience for students.

a. Qualifications

The clinical liaison must:

- i. Demonstrate the ability to effectively oversee clinical experiences of the students
- ii. demonstrate knowledge of advanced level practice

b. Responsibilities

The clinical liaison must be responsible for:

- i. coordinating clinical instruction at the site
- ii. communicating with the program director

D. Advisory Committee

There must be an advisory committee composed of individuals from the community of interest (e.g., practicing professionals, academic professionals, scientific consultants, administrators, pathologists and other health professions, public member) who have knowledge of clinical laboratory science education.

1. Responsibilities

The advisory committee of the program shall have input into the program/curriculum to maintain current relevancy and effectiveness

VIII. Curriculum Requirements

A. Instructional Areas

1. Graduate level coursework that includes an appropriate mix of didactic and clinical education must be assured. Typical graduate programs will include the equivalent of 3 years of full-time graduate study with a credit load governed by institutional full-time requirements
2. An applied or translational research project, final treatise, or capstone experience must be required. Integral components will

include research design, statistics, grant writing, protection of human subjects, and research ethics

3. Opportunities for students to educate and provide consultation must be assured
4. The program curriculum must include advanced theory and clinical correlation. The curriculum must address pre-analytical, analytical and post-analytical components of laboratory services. This includes principles and methodologies, performance of assays, problem-solving, troubleshooting techniques, interpretation and evaluation of clinical procedures and results, data evaluation, principles and practices of quality assurance/quality improvement, and continuous assessment of laboratory services for all major areas practiced in the contemporary clinical laboratory
5. Advanced knowledge in scientific areas that affect patient care (i.e., epidemiology, pharmacology and pathophysiology)
6. Health care knowledge necessary to provide and coordinate patient care as impacted upon by laboratory testing. Integral components must include, but are not limited to, development and application of clinical decision making, development and application of critical paths/test algorithms, utilization review, patient and provider safety, quality systems, and medical error prevention
7. Participation in a variety of clinical experiences to include clinical rounds
8. Collecting, managing, and applying information from patient records in a confidential manner
9. Knowledge and application of interpersonal and communication skills necessary to function in an integrated direct patient-care delivery model, interacting with diverse communities of patients, family members, and other health care team members
10. Knowledge in development, interpretation and application of health care policy and legislation to include reimbursement policies, medical liability exposure, licensure, ethics, tort, patient privacy protection, etc

11. Principles and practices of leadership and management as applied to health care services
12. Knowledge in health care services delivery and access through skills developed in resources management, outcomes analysis, and analysis of costs relative to benefits

B. Learning Experiences

The curriculum design must reflect the mission and philosophy of both the program and the institution, and must provide the basis for program planning, implementation, and evaluation. The learning experiences must be properly sequenced to develop and support doctoral level competencies.

C. Evaluations

Written criteria for passing, failing, and progression in the program must be provided and these must be given to each student at the time of entry into the program. Evaluation systems must be related to the objectives and competencies described in the curriculum for both didactic and applied components. They must be employed frequently enough to provide students and faculty with timely indications of the student's academic standing and progress and to serve as a reliable indicator of the effectiveness of instruction and course design.