

SPECIALIST IN BLOOD BANK TECHNOLOGY GRADUATE CERTIFICATE

The Specialist in Blood Bank Technology (SBB) Graduate Certificate Program offers a solid foundation in Blood Bank Technology by integrating theoretical instruction with work-based clinical rotations where students apply their knowledge in real-world clinical settings. Aligned to the Commission on Accreditation of Allied Health Education Programs (CAAHEP) standards and guidelines, students will gain expertise in Blood Products, Blood Group Systems, Immunology, Physiology and Pathophysiology Related to Blood and Blood Transfusion, Serologic and Molecular Testing, Transfusion Practice, Laboratory Operations, Basic and Complex Immunohematology Workups, HLA in Transfusion Medicine and Transplantation, and Compliance with Industry Standards. Students will be prepared to challenge the SBB (ASCP) certification exam and contribute effectively to the field of transfusion medicine.

Admission Requirements

- Grade point average of at least 3.0 in the last 60-semester (90 quarter) units attempted.
- Meet one of the following pathways (as defined by the American Society for Clinical Pathology Board of Certification):
 - Route 1
 - Hold a bachelor's degree from a regionally accredited college or university.
 - Possess current Medical Technologist/Medical Laboratory Scientist by American Society of Clinical Pathologist (ASCP) or Bloodbank(ASCP) certification.
 - Have three years full-time acceptable clinical experience in blood banking within the last ten years.
 - Route 2
 - Hold a master's degree in a chemical, physical, biological, or clinical laboratory science from a regionally accredited institution.
 - Have three years full-time acceptable clinical experience in blood banking within the last ten years.
 - Route 3
 - Hold a doctoral degree (e.g., PhD, MD, DO) in a chemical, physical, biological, or clinical laboratory science from a regionally accredited institution.
 - Have two years full-time acceptable clinical experience in blood banking within the last ten years.
 - Route 4
 - Hold a bachelor's degree from a regionally accredited college or university.
 - Have five years full-time acceptable clinical experience in blood banking within the last ten years.
 - Route 5
 - Hold a bachelor's degree from a regionally accredited college or university.
 - Have completed three years of full-time experience as an educator teaching clinical laboratory science or blood banking at an accredited postsecondary institution within the last ten years.

- Route 6
 - Hold a bachelor's degree from a regionally accredited college or university.
 - Possess current Specialist in Bloodbanking (SBB) (ASCP) certification.
 - Be applying for admission into a second SBB program for additional academic or professional development.

Program Learning Outcomes

1. Explain how donor suitability is assessed and how blood component processing, storage, and quality control are maintained.
2. Discuss blood group genetics and biochemistry, the importance of Human Leukocyte Antigen (HLA), and the role of blood group antigens in transfusion and transplantation.
3. Apply the principles of immunology, physiology, and pathophysiology as they relate to blood and transfusion medicine.
4. Perform and analyze routine blood bank testing, including blood typing, antibody detection and identification (basic and complex), utilizing appropriate reagents and special tests; interpret leukocyte and platelet testing results; and implement quality assurance in serologic and molecular testing while upholding ethical and regulatory standards.
5. Evaluate the indications and contraindications for blood transfusion, component therapy, adverse effects of transfusion, patient blood management, massive transfusion protocols, blood product administration, apheresis, and extracorporeal circulation support.
6. Implement laboratory safety protocols; conduct quality assessments; apply laboratory mathematics; operate laboratory instrumentation; demonstrate leadership in laboratory administration and management; practice ethical laboratory documentation, case resolution, and interdisciplinary collaboration for patient care and safety.

Specialist in Blood Bank Technology Graduate Certificate – 17 units

Required Courses (17 units)

Code	Title	Units
SBB 701	Blood Products and Donor Management	2
SBB 702	Blood Group Systems and Transfusion Immunology/Physiology	3
SBB 703	Serologic and Molecular Testing in Blood Banking	3
SBB 704	Transfusion Practice and Patient Blood Management	3
SBB 705	Laboratory Operations, Leadership, and Quality Management	2
SBB 706	Specialist in Blood Bank Technology Capstone	2
SBB 707	Immunohematology Field Practicum	2