# American Society for Clinical Pathology Board of Certification (ASCP BOC)

# Practice Analysis Report: Medical Laboratory Assistant - MLA

For Development of Content Guideline and June 1, 2026 Examination Publication for MLA(ASCP) Credential

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## Introduction

The purpose of conducting a practice analysis (a.k.a. job analysis or job task analysis) is to provide the foundation of a credentialing examination by defining practice in a profession. The practice analysis provides evidence of content validation. It is required by psychometric standards and is considered best practice for high-stakes examination development. It also ensures the examination is fair, valid, job-related, and most importantly, legally defensible (Chinn and Hertz 2010)[1]. The American Society for Clinical Pathology Board of Certification (ASCP BOC) conducts a practice analysis approximately every five years in accordance with ASCP BOC Policy and requirements of the accrediting body, ANAB (ANSI [American National Standards Institute] National Accreditation Board), under ISO/IEC 17024.

A practice analysis is a formal process for determining or verifying the responsibilities of individuals in the job/profession, the knowledge individuals must possess, and the skills and abilities necessary to practice safely and effectively in the field. It provides a complete and modern understanding of the duties and functions of practicing laboratory professionals. The practice analysis process is carried out in the form of a survey that lists all the tasks thought to be completed by practicing laboratory professionals. The results of the practice analysis inform the specifications and content of the ASCP BOC examinations. This ensures that the examinations are reflective of current practices, and it helps guarantee that individuals who become credentialed are current and up-to-date on the state of practice and perform safely and effectively as credentialed laboratory professionals.

## Practice Analysis Process

The ASCP BOC conducted a practice analysis survey to inform the Specialist in Cytometry – SCYM examination category.

The process for conducting a practice analysis consists of the following steps:

1. Survey Development
2. Demographics
3. Task Inventory – Skill Questions
4. Rating Criteria
5. Survey Construction
6. Pilot Testing and Revision
7. Survey Distribution
8. Survey Analysis
9. Subject Matter Expert (SME) Review and Discussion
10. Examination Revision and Publication

[1] Chinn, R.N., and N.R. Hertz. 2010. *Job Analysis: A Guide for Credentialing Organizations.* Lexington: Council on Licensure, Enforcement and Regulation (CLEAR).

## Survey Development

During the May 2022 ASCP BOC Medical Laboratory Assistant Examination Committee Meeting, the examination committee volunteers, serving as subject matter experts (SMEs), provided the input and discussion to develop a practice analysis survey. The SMEs collectively discussed all pertinent aspects of their profession to design a concise survey to extract useful feedback from field professionals while maximizing response rate. The survey had two main components: demographics and task inventory with appropriate rating scales for each.

## Demographics

The demographic questions asked respondents about their experience, education, type of facility, gender, age, etc. The purpose of these questions was to aid the SMEs in deciding whether the sample of respondents obtained was representative of the profession in general.

## Task Inventory – Skill Questions

The SMEs developed a series of job-related task questions that formed the body of the survey. The survey had five major sections:

- Patient Registration and Specimen Collection
- Specimen Preparation and Processing
- Support for Clinical Testing
- Waived and Point-of-Care Testing (POCT)
- Laboratory Operations

## Rating Criteria

The rating scale used for the job-related task questions asked respondents to indicate whether or not they currently performed specific tasks as part of their jobs at least once per day, at least once per week, or at least once per month. If the respondents indicated that they did not perform a task, they were asked to select whether they were expected to have knowledge of the concept or protocol.

## Survey Construction

The practice analysis survey was created and delivered through Key Survey. Using an electronic tool allowed survey review and testing via the internet, email tracking of respondents using email addresses, and the ability to send email reminders for completion of the survey.

## Pilot Testing and Revision

The SMEs tested a pilot version of the survey. They reviewed and revised different aspects of the survey (e.g., information correctness, grammar/spelling, survey branching). The pilot testing comments and edits informed the final version of the survey.

## Survey Distribution

The SMEs determined that the survey should be sent to all current MLA(ASCP) credential holders in the ASCP BOC Personify database, as well as to individuals who were not successful in passing the examination. The survey was open for a 3-week period between February 17 – March 11, 2023. The ASCP BOC team also directly emailed the survey to the SMEs and to other ASCP BOC examination committees and encouraged these volunteers to disseminate the survey to their colleagues. Additionally, the survey link was shared on ASCP BOC social media sites (i.e., Facebook, Instagram, and LinkedIn).

## Survey Analysis

The respondents were asked to answer all questions and rate all tasks in the survey. Any individuals not currently practicing (e.g., retired, unemployed for over a year, or simply not working as a medical laboratory assistant, clinical laboratory assistant, or specimen processor) were removed from the practice analysis survey.

## SME Review and Discussion

During the May 2023 Medical Laboratory Assistant Examination Committee Meeting, the SMEs reviewed the practice analysis results. They agreed that the demographic results accurately reflected the MLA population **(Appendix A)**.

In general, tasks performed by at least 40% of the respondents were retained on the task list and considered valid to be included on the examination. The SMEs reviewed all tasks performed by less than 40% of the respondents. If the SMEs determined that a task was critical to patient care and/or was up-and-coming in practice, then it was retained on the task list and considered valid for the examination. If a task was considered outdated or too esoteric, then it was removed from the task list and not included on the examination. The task decisions were compiled into the Final Task List for MLA **(Appendix B)** which was used to inform the examination content guideline and the content for the examination.

## Examination Revision and Publication

The SMEs revised the MLA Examination Content Guideline based on the Final Task List for MLA (Appendix B). They reviewed the content area percentages and adjusted them based on the results of the practice analysis. The SMEs also reviewed the examination database according to the updated content guideline and deleted or revised questions accordingly. They wrote new questions to fulfill the content guideline, and reclassified questions according to the updated guideline. After this work was completed, the SMEs performed standard setting to determine the pass point of the examination, and the new examination was published on June 1, 2026.

# MLA Demographic Analysis

There were 158 total usable survey respondents. Usable respondents met the following criteria:

- Currently employed as a medical laboratory assistant, clinical laboratory assistant, or specimen processor
- Unemployed, but worked as a medical laboratory assistant, clinical laboratory assistant, or specimen processor within the past year

## ASCP BOC Credentials

**Respondents may have multiple credentials. The most common credentials included:**

- 22% Medical Laboratory Assistant – MLA(ASCP)
- 22% Phlebotomy Technician – PBT(ASCP) or PBT(ASCP$^{i}$)
- 5% Medical Laboratory Scientist – MLS(ASCP) or MLS(ASCP$^{i}$)
- 3% Medical Laboratory Technician – MLT(ASCP) or MLT(ASCP$^{i}$)

## Geographic Distribution

**There were respondents from across the U.S. The highest percentage were from:**

- 18% Washington
- 11% Wisconsin
- 10% Michigan, Iowa, Minnesota
- 6% Illinois, Texas

## Education

**Highest level of education completed:**

- 9% high school diploma/GED
- 22% some college credits, no degree
- 16% program certificate, non-degree
- 16% associate degree
- 37% baccalaureate degree or higher

## Experience

**Years of experience:**

- Mean: 9
- Minimum: 1
- Maximum: 40

## Age

**Years of age:**

- Mean: 38
- Minimum: 20
- Maximum: 65

## Facility

**Respondents worked in the following types of facilities:**

- 68% hospitals
- 15% physician office/clinic laboratories
- 8% independent (reference/commercial/private) laboratories
- 10% other types of facilities

## Gender

- 70% female
- 24% male
- 1% nonbinary
- 5% chose not to answer

# MLA Final Task List

The following topics were included on the MLA examination based on the practice analysis results (see SME Review and Discussion on page 5).

## Patient Registration and Specimen Collection

- Identify patients
- Test order entry
- Identify and correct test ordering errors
- Perform venipunctures using vacuum collection (from tourniquet application to bandaging site)
- Perform venipunctures using winged devices (i.e., butterflies)
- Perform venipunctures using syringes
- Recognize and follow-up with adverse reactions to blood collections (e.g., fainting, hematoma)
- Collect chain-of-custody specimens

## Specimen Preparation and Processing

- Accession specimens (i.e., document specimen receipt in laboratory)
- Evaluate specimen suitability for testing (e.g., correct labeling, hemolysis, quantity not sufficient [QNS], clotting, correct specimen type)
- Centrifuge specimens
- Aliquot specimens (e.g., pour-off, pipetting)
- Transport specimens appropriately (e.g., protected from light, chilled, warmed, time)
- Store specimens appropriately (e.g., room temperature, refrigerated, frozen)
- Follow chain-of-custody procedures
- Evaluate suitability of specimens for add-on orders
- Send specimens through the pneumatic tube system
- Prepare and ship specimens to reference laboratories (send outs)
- Prepare and/or process specimens – blood
- Prepare and/or process specimens – urine
- Prepare and/or process specimens – body fluids (e.g., CSF, peritoneal, sputum)
- Prepare and/or process specimens – microbiology (e.g., bacterial cultures, mycology, virology)
- Prepare and/or process specimens – cytology (e.g., Pap smears, FNA)
- Prepare and/or process specimens – histology

## Support for Clinical Testing

- Prioritize workload
- Operate cytocentrifuge (Cytospin)
- Prepare and label slides for hematology (e.g., peripheral blood smears)
- Prepare and label slides for microbiology (e.g., Gram stains)
- Perform microbiology setup and plating
- Prepare reagents, standards, and controls
- Store reagents, standards, and controls
- Dispose of reagents, standards, and controls
- Load instruments with specimens to initiate testing
- Perform daily/weekly instrument maintenance
- Recognize and report technical and analytical errors
- Perform quality control
- Evaluate/troubleshoot quality control results
- Report critical values
- Retrieve and report results
- Perform inventory management (e.g., restock/order reagents, gloves, tubes, pipette tips, slides, and other related supplies)

## Waived and Point-of-Care Testing (POCT)

- Urinalysis (e.g., dipstick)
- Strep screens
- Rapid flu tests (i.e., influenza A/B)
- Pregnancy tests
- Report waived and/or POC test results
- Operate POC testing instruments

- Maintain POC testing equipment
- Perform POC testing quality control (i.e., internal and external controls)

## Laboratory Operations

- Perform quality assurance (e.g., check refrigerator temperatures, check for expired tubes)
- Communicate with patients (e.g., identification, age-specific needs, special needs, ADA, HIPAA)
- Perform quality assessment activities (e.g., incident report/investigation, specimen errors, turnaround time)
- Communicate with staff and other healthcare professionals (e.g., about rejected specimens)
- Perform LIS functions (e.g., data entry, specimen accessioning, label generation, specimen tracking)
- Comply with safety practices (e.g., OSHA, Standard Precautions, infection control)
- Comply with chemical safety practices (e.g., SDS, dry ice, urine preservatives)
- Comply with laboratory regulations (e.g., HIPAA, ADA, CDC, DOT, TJC, CMS)
- Perform basic laboratory equipment maintenance (e.g., centrifuges, microscopes)