Laboratory Competency Analysis Tool - LCAT

APHL Emerging Leaders Program Cohort 8
Emerging Leader Program

• 12-month leadership development program for public health laboratorians
• Three skill-building workshops
• Group Project: Yearlong project to identify an innovative solution to a problem in the public health laboratory community
Cohort 8

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Development of the LCAT

“These guidelines provide highly structured competencies intended to help ensure a capable, well-trained, and prepared laboratory workforce.”
General Laboratory Practice Domain

- Selected based upon ability to cross section specialty areas
- A total of 7 areas; represented by 29 subcompetencies
General Laboratory Practice

Domain 1.00

General technical and laboratory practice knowledge: demonstrates general knowledge and skills related to the scientific and technical components of laboratory testing

GEN 1.01 General scientific and laboratory concepts and theories
GEN 1.02 Mathematical and statistical concepts and practices
GEN 1.03 Scientific and technological advances
GEN 1.04 Technical Skills
GEN 1.05 Troubleshooting
GEN 1.06 Model laboratory practices
GEN 1.07 Documentation
GEN 1.08 Stewardship of resources
GEN 1.09 Scientific ethics
The Laboratory Competency Assessment Tool

Development and Format of the Demo
A brief introduction that supplies information to the survey taker

Demographics are collected for a breakdown of how well the demo functions for various areas

The name entered into the survey will be utilized on the personalized results page upon survey conclusion
Each subcompetency has a brief example list provided to assist in understanding the area being assessed.

LCAT uses a yes/no question format.

Questions sections start with 3 and expand to 12 questions.
Hello Marty! Thank you for participating in the Laboratory Competency Analysis Tool (LCAT)! You have successfully contributed to the nation-wide assessment of the public health laboratory workforce.

This report is for the competencies in General Laboratory Practice that addresses the knowledge, skills, and abilities needed to fulfill basic responsibilities for performing sample analyses within a public health laboratory setting.

This Individual Assessment Report (IAR) provides a snapshot of your current proficiency-level in the assessed sub-competencies. Your IAR may be used to help identify areas of strength or areas in which there may be a need for further training. If that is the case, then we recommend that you discuss the possibility of future training(s) with your immediate supervisor.

It is important to note that each competency and sub-competency within a particular domain may not apply to your laboratory responsibilities. Although sets of the LCAT responses may be aggregated for analysis, those analyses do not include your name or other personally identifiable information.

**Sub-Competency Names**

- GEN 1.01: General scientific and laboratory concepts and theories
- GEN 1.02: Mathematical and statistical concepts and practices
- GEN 1.03: Scientific and technological advances
- GEN 1.04: Technical skills
- GEN 1.05: Troubleshooting
- GEN 1.06: Model laboratory practices
- GEN 1.07: Documentation
- GEN 1.08: Stewardship of resources
- GEN 1.09: Scientific ethics

**Proficiency Tier Definitions**

- Beginner: One who can demonstrate performance at an elementary level. May have gained enough classroom or on-the-job experience, but might not be able to apply it consistently. Requires frequent guidance or oversight.
- Competent: One who has the necessary ability to cope with many contingencies of laboratory operations with a high degree of independence. In developing the knowledge and experience to recognize the most salient or important aspect of a situation encountered in the lab.
- Proficient: One who uses established principles to manage the many contingencies of laboratory operations. One who has developed sufficient mastery to integrate or design a new task or function. Is able to foresee and adapt to typical events encountered in the lab.
- Experts: One who has acquired a mastery to design new strategies, policies, tasks, and functions that support quality operations of a laboratory. Operates from a deep understanding of the situation and focuses on the root of the problem.
Feedback survey responses being used to make changes to the final demo product.
The Laboratory Competency Assessment Tool

Results of Early Beta Testing
Beta-testing

There were ### total of Beta-test survey takers

Demographics showed:
Stratified Results
Commonly mentioned issues
Well received areas
Future Developments

Aggregate Data

Type of Assessment:
Please indicate for whom you are completing the LCAT to determine the level of competency. Is it for yourself, your group, your entire laboratory? Please click the appropriate option.

Individual ○  Lab Unit/Division ○  Entire Laboratory ○

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APHL Emerging Leaders Program, Cohort 8

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