

Microbiology-Oriented eLearning Courses: Screen Shots from www.cdc.gov/labtraining

These screenshots show the eLearning courses that are represented in the 2018 Microbiology-Oriented eLearning Course Learner Feedback Survey

s/basic-microbiology/index.html Search...

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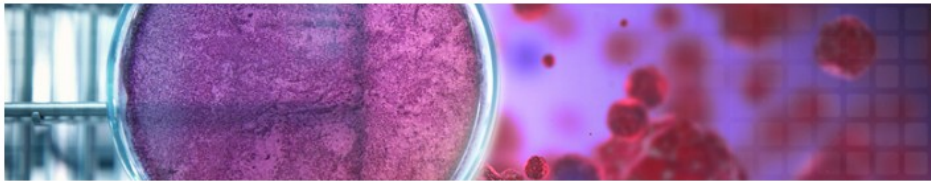
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Basic Microbiology eLearning Curriculum

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[Basic Microbiology Curriculum](#)

[Basic Microscopy](#)

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[Antimicrobial Susceptibility Testing Methods \(AST\)](#)

Description

The Basic Microbiology eLearning Curriculum provides online training for public health laboratory professionals in the area of basic microbiology laboratory skills and procedures necessary to identify microorganisms from clinical specimens. The basic microbiology curriculum includes six eLearning courses. Each course is comprised of interactive, concise content allowing for completion during open periods throughout the day. Job aids and laboratory exercises are included so participants may work with a supervisor/mentor to comprehend and perform proper microbiology techniques.

Audience

Public health laboratory professionals with a science background entering or reentering the microbiology field who need basic microscopy principles and techniques training.

Objectives

At the conclusion of this program, participants will be able to:

- Identify proper use, cleaning, and set-up of a bright field microscope
- Sequence the steps of routine microscopy procedures (smear preparations, wet mounts, KOH, Gram stain, and India Ink) critical for the identification of microorganisms
- Interpret results of routine microscopy procedures used in the microbiology laboratory
- Select appropriate culture media to isolate infectious microorganisms
- Identify microorganisms using colonial morphology, Gram stain results, biochemical tests, and algorithm flowcharts
- Associate the basic principles and methods of antimicrobial susceptibility testing of microorganisms
- Identify commonly encountered troubleshooting techniques for various basic microbiology procedures

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Biothreat Preparedness Training for Sentinel Laboratories



Biothreat Preparedness Training for Sentinel Laboratories

[Bacillus anthracis](#)

[Brucella spp.](#)

[Burkholderia spp.](#)

[Yersinia pestis](#)

[Francisella tularensis](#)

Description

Each of these intermediate-level, interactive online course reviews a component of the Laboratory Response Network (LRN) protocols for bioterrorism agent identification. The courses include case studies, real-life laboratory scenarios and links to resource information. Course materials may be used as part of a laboratory's competency assessment program for terrorism preparedness. The five course courses are listed to the left.

Audience

Laboratory professionals

Objectives

At the conclusion of this eLearning, you will be able to:

- List potential bioterrorism agents that must be reported to public health authorities, and explain the role of the clinical laboratory in detecting these organisms in clinical specimens
- Discuss standardized laboratory tests used to isolate and identify *Bacillus anthracis*, *Brucella* spp., *Burkholderia* spp., *Yersinia pestis*, *Francisella tularensis*, and explain how to use these tests to rule out or refer isolates
- Define biosecurity, including threats, vulnerabilities and its relationship to biosafety
- Explain how to conduct a laboratory biosecurity risk assessment and use the results to formulate a complete biosecurity plan
- Identify appropriate reference resources

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Methods of Antimicrobial Susceptibility Testing Educational Resource (MASTER) eLearning Curriculum



Methods of Antimicrobial Susceptibility Testing Educational Resource (MASTER)

[Antimicrobial Susceptibility Testing Methods \(AST\)](#)

[Antimicrobial Susceptibility CLSI Standards](#)

Description

The Methods of Antimicrobial Susceptibility Testing Educational Resource (MASTER) eLearning curriculum provides online training in antimicrobial susceptibility testing for bacteria isolated from clinical specimens.

Audience

Laboratory professionals with knowledge of basic medical microbiology and who perform antimicrobial susceptibility testing or are considering adding it to the laboratory's testing menu.

Objectives

At the conclusion of this eLearning, you will be able to:

- Associate disk diffusion, MIC, and commercial AST systems as antimicrobial susceptibility testing methods
- Recognize the role of CLSI in developing recommendations for antimicrobial susceptibility testing of bacteria isolated from clinical specimens
- Identify the components of a quality assurance and quality control program for antimicrobial susceptibility testing
- Review Gram positive organisms, *Staphylococcus* spp., *Enterococcus* spp., *Streptococcus* spp., and Anaerobes for AST
- Review Gram negative organisms, *Enterobacteriaceae*, *Non-Enterobacteriaceae*, and *Haemophilus* for AST