Online Clinical Competency Checklist - MLS 2212 Principles of Clinical Microbiology I

LABORATORY CLINICAL EXPERIENCE OBJECTIVES

The MLS 2212 student has studied the following items in class this semester to prepare them for this laboratory skills competency practical experience:

Taxonomy and bacterial structure
Gram staining
Colonial morphology and hemolysis
General media types
Incubation requirements
Normal flora
Bacterial metabolism
Characteristics, initial setup, identification, disease processes caused by and general treatment for the following organisms:

- Streptococcus species
- Staphylococcus species
- Enterococcus species
- Neisseria species
- Moraxella catarrhalis
- Gram negative bacilli (all types except anaerobes)

It is understood that the student may be introduced to organisms not yet covered in this semester's course (anaerobes, Gram positive bacilli, parasites, fungi, etc) in daily workload. If time permits, these organisms should be discussed. However, knowledge and competency for these organisms is not required for this semester and course.

The student should perform the following tasks (as deemed appropriate for students by the clinical facility):

- Participate in culture set up procedures from labeling through incubation
- Perform and interpret Gram stains on both specimens and direct colonies
- Become familiar with automated instruments used in the Microbiology laboratory, including maintenance, Quality Control measures, operation and troubleshooting.
- Participate in plate reading under direct supervision
- Participate in setup and interpretation of antimicrobial susceptibility testing
- Become familiar with processes for reviewing and reporting results, including STATs critical values
- Perform all procedures using the teaching institution's methodology and SOPs.

Students should work with their respective mentors to complete the listed objectives. Accuracy, precision, timely reporting of results and demeanor must comply with the laboratory's acceptable standards. While working in the laboratory, the student must meet laboratory standards for work habit skills in patient confidentiality, communication skills, laboratory safety, universal precautions, waste disposal, equipment, and work area maintenance. It is requested that the student's laboratory competency evaluation be completed by the clinical mentor ***in the presence of the student***, so as to allow verbal feedback to the student regarding the student's progress and performance.

Note: As part of the National Accrediting Agency for Clinical Laboratory Sciences (NAACLS) accreditation regulations, no student may engage in **service work** during his/her clinical experience. All laboratory test results generated by students during their clinical hours must be directly supervised by clinical laboratory staff. While the student is performing their clinical hours, they must be performing duties as a student, and not an employee. **Definition of Service Work:** Providing or generating results of clinical tests on patient samples without direct supervision of clinical staff or supervisor managers which exceeds the expected component required for the educational process.

Student: _____ Wildcat ID #_____

LEVELS OF ACHIEVEMENT/SCORING KEY

1: Discussed: Process was discussed, principle explained, student acknowledges an understanding of the process or principle.

2: Demonstrated: Process has been performed and demonstrated by the practicum instructor. Student has observed demonstration and has been allowed to ask questions as needed. The student acknowledges an understanding of the process or principle by verbally explaining the process or principle back to the practicum instructor.

3: Practiced: Student has ***practiced*** the process under the direction and maximum supervision of the practicum instructor. The student demonstrates knowledge of how to perform the process or task by actual performance under direct, maximum supervision, but without having to demonstrate any particular competency at that task or process.

4: Maximum Supervision: The student has performed the process under the direct, maximum supervision of the practicum instructor, and with the level of competency required by the laboratory for that task or process.

5: Minimum Supervision: The student can perform the process satisfactorily with only minimum or non-direct supervision by the practicum instructor, and the performance meets the level of competency required by the laboratory for that task or process.

N/A: Not Available: The nature of the laboratory does not allow the student access to the equipment/test method.

Note: The competencies will be graded for a total of 100 pts. Points will be deducted for competency categories that are not met. If an item is not available at the lab, please N/A that area so the student does not lose points. If something is not available, but was discussed with the student, please write, "1 – N/A". Students must achieve a minimum of 80% on their competency checklist in order to pass.

Please note that the goal of the lab competencies is for your mentor to feel comfortable with your ability in the micro lab. If your mentor does not feel that the minimum required time is adequate, you should work out a schedule with them to spend more time in the microbiology lab. Mandatory items are denoted as "M" on the checklist, if a mandatory item cannot be completed, it must be cleared with the instructor.

Please have all mentors print their name, initial, sign and date below.

Name of Facility: _____

Mentor Printed Name_____ **Initials**_____

Mentor Signature _____ **Date** _____

Mentor Printed Name_____ **Initials**_____

Mentor Signature _____ **Date** _____

Mentor Printed Name_____ **Initials**_____

Mentor Signature _____ **Date** _____

Comments:

Student: _____ Wildcat ID #_____

Orientation and Lab Safety	**Mandatory**	**Expected Score**	**Student Score**	**Date complete**	**Mentor initial**
Review the laboratory's fire safety plan.	M	5			
Locate Personal Protective equipment and MSDS.	M	5			
Understand Universal Precautions for microbiology.	M	5			
Labeling & Specimen ID					
Label specimens according to institutional policies.	M	5			
Specimen set up & incubation					
Select proper media for specimens including plated media and broth media.	M	5			
Understand specimen collection & rejection criteria.	M	5			
Incubate specimens properly.	M	5			
Inoculation					
Demonstrate plate streaking for isolation & quantitative streaking for urines.	M	5			
Quality Control					
Perform quality control procedures in accordance with institutional policies for new media, reagents, and stock culture organisms.		5			
Understand documentation & actions taken when results are not in acceptable limits.		5			
Gram Staining					
Practice performing Gram stains until proficient.	M	5			
Evaluate grams stains, including sputum samples, wounds, genital samples, and positive blood cultures until proficient.	M	5			
Evaluation of primary cultures					
Evaluate cultures to recognize what is normal flora and what is significant.	M	5			
Evaluate throat cultures & select next course of action.		5			
Evaluate urine cultures to decide when susceptibility testing is warranted.		5			
Evaluate vaginal cultures to recognize what is normal flora and what is significant.		5			
Evaluate stool cultures to recognize what is normal and what to process further.		5			
Evaluate body fluid cultures for pathogens.		5			
Evaluate wound cultures to recognize what is significant -select next course of action.		5			
Evaluate respiratory cultures, including sputum cultures. Recognize normal resp. flora & significant pathogens.		5			
Blood Culture processing					
Demonstrate procedure for processing positive blood cultures including subcultures, Gram stains, and proper reporting of results.		5			
Primary ID of organisms					
Recognize Streptococcus species & perform tests to classify them according to the Lancefield classification scheme.		5			
Recognize & perform tests to identify Staphylococcus species.	M	5			
Identify coagulase negative Staphylococcus species.	M	5			
Recognize and identify Haemophilus species.		5			
Recognize and identify Neisseria species.		5			
Recognize and perform biochemical tests to ID GNBs, including lactose fermenters, nonfermenters, and other miscellaneous GNBs.		5			

Student: _____ Wildcat ID #_____

Primary ID of organisms (Continued)		**Expected Score**	**Student Score**	**Date complete**	**Mentor initial**
Recognize and identify Campylobacter species.		5			
Interpretation and Acceptance of results					
Discuss recording, reporting, and documenting results	M	5			
Discuss which organisms are reportable to the State Health Department.	M	5			
Serological testing					
Perform Rapid test for Group A Streptococcus, include proper labeling, QC, and reporting.		5			
Student demonstrates honesty by:					
Maintaining strict patient confidentiality	M	5			
Accepting control values only when within acceptable limits		5			
Performing and documenting daily & weekly maintenance procedures, preventative maintenance, temperature checks, etc.		5			
Completing all procedures in adherence to laboratory SOPs, taking no shortcuts or unauthorized modifications of procedure	M	5			
Student demonstrates personal interactive skills and proper professional behavior by:					
Working with co-workers in a positive manner, promoting productive workflow.	M	5			
Refraining from making statements or actions that represent sexual, ethnic, racial, or homophobic harassment.	M	5			
Willingly and consistently using appropriate personal safety devices when handling caustic, infectious, or hazardous materials.	M	5			
Completing all required tasks and remaining in the work area when scheduled.	M	5			
Being punctual whenever scheduled.	M	5			
Adhering to current dress and appearance in the laboratory setting.	M	5			
Cleaning the work area when leaving the laboratory, returning supplies to appropriate storage location, & disinfecting all work areas used by the student.	M	5			
Student demonstrates professional responsibility by:					
Correctly reporting all patient test values, as well as recognizing and correctly reporting all patient critical test values.		5			
Resolving discrepancies in specimen labeling, handling, or collection before reporting results.		5			
Hours completed by student:					
Minimum time required for this lab competency is 80 hours. Mentors are encouraged to increase the number of hours dependent on individual student need. Please verify the number of hours your student spent:	M	80 hours			
Based on performance is this the type of person you would consider for potential employment?		Y ☐	N ☐		