



WEBER STATE
UNIVERSITY

Online Clinical Competency Checklist CLS 3316 Advanced Clinical Microbiology

Student: _____ Wildcat ID # _____

Course Instructor: _____

Mentors (list all for this course): _____

Facility: _____

Expected
Achievement Student
Score Date
Complete

Orientation and lab safety			
Discuss Universal Precautions for microbiology.	4		
Specimen set up & incubation			
Select proper primary media for specimens including plated media, broth media, anaerobic & fungal media (if available), and slides for Gram stains.	5		
Understand specimen collection & rejection criteria.	5		
Incubate specimens properly including anaerobic and fungal cultures.	5		
Inoculation			
Demonstrate plate streaking for isolation & quantitative streaking for urines.	5		
Quality control			
Perform quality control procedures in accordance with institutional policies for new media, reagents, and stock culture organisms.	4		
Understand documentation and actions taken when results are not within acceptable limits.	4		
Gram staining			
Practice performing Gram stains until proficient.	5		
Evaluate grams stains, including sputum samples, wounds, genital samples, and positive blood cultures until proficient.	5		
Evaluate direct Gram stains of anaerobic isolates if available.	5		
Evaluation of primary cultures			
Evaluate cultures to recognize what is normal flora and what is significant.	4		
Evaluate throat cultures & select next course of action.	4		
Evaluate urine cultures to decide when susceptibility testing is warranted.	4		
Evaluate vaginal cultures to recognize what is normal flora and what is significant.	4		
Evaluate stool cultures to recognize what is normal and what to process further.	4		
Evaluate body fluid cultures for pathogens	4		
Evaluate wound cultures, recognize what is significant, & select next course of action.	4		
Evaluate respiratory cultures, including sputum cultures. Recognize normal resp. flora & significant pathogens.	4		
Blood culture processing			
Demonstrate procedure for processing positive blood cultures including subcultures, Gram stains, and proper reporting of results.	4		
Antimicrobials			
Select appropriate pathogens to perform antimicrobial testing. Setup and Interpret antimicrobial tests i.e. Kirby bauer, automated systems (Microscan, Vitek), etc.	4		
Discuss CLSI guidelines for MIC and Breakpoint ranges.	1		
Discuss antimicrobial resistance: VRE, MRSA, VRSA.	1		
ID of organisms			

Scoring Key

1 = Discussed	2 = Demonstrated	3 = Practiced	4 = Performed under maximum supervision	5 = performed under minimum supervision	NA = Not applicable
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Recognize and identify Streptococcus species.	4		
Recognize and identify Staphylococcus species.	4		
Recognize and identify Neisseria species.	4		
Recognize and perform biochemical tests to ID GNBs, including lactose fermenters, nonfermenters, and other miscellaneous GNBs.	3		
Recognize and identify Gram-positive bacilli in cultures.			
Mycobacteria			
Process mycobacteria specimens to the extent available at your facility.	3		
Viruses			
Process specimens for viral procedures (including culture if performed at your facility).	3		
Perform RSV and Influenza testing (if performed at your facility).	4		
Parasites			
Process specimens for O&P exams to the extent available at your facility	4		
Perform testing for Giardia antigen, <i>C. difficile</i> toxins, and other stool pathogen testing (as available at your facility)	3		
Anaerobic Bacteria			
Select the proper anaerobic media for plating of specimens for anaerobic culture.	4		
Discuss proper specimen collection, handling, and transport conditions pertaining to anaerobic bacteria.	1		
Identify anaerobes in clinical specimens to the extent performed at your facility.	3		
Discuss antimicrobial therapy for anaerobic infections.	1		
Mycology			
Discuss proper specimen collection and transport issues related to Mycology.	1		
Process specimens for fungal culture to the extent performed at this facility	3		
Interpretation and acceptance of results			
Discuss recording, reporting, and documenting results	1		
Discuss which organisms are reportable to the State Health Department	1		
Molecular testing			
Review molecular testing at your facility if available.	1		
Demonstrate the proper use of micropipettes.	5		
Affective Objectives			
Student demonstrates honesty by:			
Maintaining strict patient confidentiality	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.	5		
Personal Interactive Skills			
Student demonstrates proper professional behavior by:			
Working with co-workers in a positive manner, promoting productive workflow.	5		
Refraining from making statements or actions that represent sexual, ethnic, racial, or	5		



homophobic harassment.			
Willingly and consistently using appropriate personal safety devices when handling caustic, infectious, or hazardous materials.	5		
Completing all required tasks and remaining in the work area when scheduled.	5		
Being punctual whenever scheduled.	5		
Adhering to current dress and appearance in the laboratory setting.	5		
Cleaning the work area when leaving the laboratory, returning supplies to appropriate storage location, & disinfecting all work areas used by the student.	5		
Professional Responsibility			
Student demonstrates appropriate professional affective behavior 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 patient results.	5		
Based on performance is this the type of person you would consider for potential employment? <input type="checkbox"/> Y <input type="checkbox"/> N			

Comments:

Please have all mentors sign and date below.

Mentor Signature _____ Date _____

Mentor Signature _____ Date _____

Mentor Signature _____ Date _____

Mentor Signature _____ Date _____

LABORATORY CLINICAL EXPERIENCE

At the completion of the CLS 3316 course, the student will have successfully completed the following:

1. **Primary plating.** Processing clinical specimens to include:
 - appropriate methods of logging specimens
 - choosing appropriate media
 - proper plating techniques
2. **Gram Stains.** Prepare and interpret direct gram stains to include:
 - screening appropriate from inappropriate specimens for culture
 - giving the physician the maximum amount of information possible
3. **Plate Reading.** Initial reading of primary plates to include:
 - interpretation of initial growth
 - sub culturing of initial growth if indicated
 - performing diagnostic testing for interpretation as needed
4. **Antibiotic Susceptibility Testing.** Performing antibiotic susceptibility testing by individual laboratory methods. To include one or more of the following:
 - Kirby-Bauer susceptibility testing
 - MIC's
 - automated methods
5. **Automated Instrumentation.** Perform testing on any automated instrumentation used by the laboratory.
6. **Serological Testing.** Perform testing using serological methods used by the laboratory.
7. **Molecular Testing.** Observe any molecular testing performed by the laboratory.
8. **Quality Control.** Perform daily and weekly quality control to include quality control on any automated instrumentation available.

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.

LEVELS OF ACHIEVEMENT

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

LEVEL 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.

LEVEL 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.

LEVEL 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.

LEVEL 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/Applicable: The nature of the laboratory does not allow the student access to the equipment/test method.

Please only submit pages 1 – 3 of this form when returning signed competencies.