



***Medical Laboratory Technology
Program***

***Clinical Practicum Student
Handbook***

2019-2020

CLINICAL PRACTICUM STUDENT HANDBOOK

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CLINICAL AFFILIATE CONTACT INFORMATION

Charleston Area Medical Center – Memorial

| | | |
|--|--------------------------------|---------------------|
| Clinical Coordinator | Cassie Chenoweth | 304-388-8492 |
| CAMC Mem AP Lab (chem, hema, coags, ua) | | |
| | Jade Chaney | 304-388-8246 |
| CAMC Mem Microbiology | Lisa Brown (unit sup) | 304-388-9353 |
| CAMC Mem Virology | Becky Ashley (unit sup) | 304-388-4308 |
| CAMC Mem Blood Bank | Regina “Susie” Halstead | 304-388-4236 |

Charleston Area Medical Center – General

| | | |
|-----------------------------|-------------------------|---------------------|
| Clinical Coordinator | Cassie Chenoweth | 304-388-5077 |
| All sections | Tammy Nelson | 304-388-6244 |

Charleston Area Medical Center – Women’s and Children’s

| | | |
|-----------------------------|-------------------------|---------------------|
| Clinical Coordinator | Cassie Chenoweth | 304-388-5077 |
| All sections | Kim Ewers | 304-388-2381 |

Charleston Area Medical Center – Teays Valley

| | | |
|-----------------------------|-------------------------|---------------------|
| Clinical Coordinator | Cassie Chenoweth | 304-388-5077 |
| All sections | Angela Warner | 304-757-1770 |

Thomas Health Systems – Thomas Memorial Hospital

| | | |
|-----------------------------|----------------------------|---------------------|
| Clinical Coordinator | James “Tony” Aluise | 304-766-5955 |
| All Sections | Susan Riginger | 304-766-5955 |

Montgomery General Hospital

| | | |
|-----------------------------|-------------------|---------------------|
| Clinical Coordinator | Pam Arthur | 304-442-7471 |
|-----------------------------|-------------------|---------------------|

Huntington VA

| | | |
|--|--------------------|---------------------|
| Lab Director/Clinical Coordinator | Mike Porter | 304-429-6741 |
|--|--------------------|---------------------|

Saint Mary’s Hospital

| | | |
|--|---------------------|---------------------|
| Micro Technician/Clinical Coordinator | Ray Castillo | 304-526-1071 |
| Lab Director | Jane Roberts | 304-526-1060 |

Cabell Huntington Hospital

| | | |
|--|-----------------------|---------------------|
| Asst. Lab Director/Clin Coordinator | Veronica Mayes | 304-526-2152 |
|--|-----------------------|---------------------|

Cabell

Huntington Hospital

Asst. Lab Director/Clin Coordinator Veronica Mayes 304-526-2145

Lab Director Frank Wellman 304-526-2611

Pleasant Valley Hospital

Lab Director/Clin Coordinator Mitchell Smith 304-675-4340

Summersville Regional Med Center

Lab Director Erin Massey 304-872-8441

Directions to Huntington and Point Pleasant Hospitals

Huntington VA Medical Center—Mike Porter, Lab Director (304-429-6741 or 304-429-2454 Email: Michael.porter@VA.gov)

- I-64 West from South Charleston
- Exit 6 to VA Medical Center
- Turn right and get off first exit (from 4-lane road)
- Turn left
- Follow until you get to 4-way stop light at convenience store (3rd light you will come to)
- Turn left and cross bridge (pretty big bridge)
- Continue a little ways on road and VA will be on the left.

St. Mary's Hospital – Jane Roberts, Lab Director (304-526-1816 Email: jane.roberts@st-marys.org)

- I-64 West from South Charleston
- 29th street exit in Huntington
- Turn right—follow to end—several miles
- Turn left on 3rd avenue—hospital will be on your right

Cabell Huntington Hospital, 1340 Hal Greer Blvd, Huntington, WV 25701 – Rick Ross , Administrative Director (304-526-2152 cell: 434-987-4179 Email: rick.ross@chhi.org; Frank Wellman, Lab Director)

- (see above instructions)
- Follow 3rd avenue to Hal Greer Boulevard
- Turn left—Cabell Huntington will be on left

Pleasant Valley Hospital, 2520 Valley Drive, Point Pleasant, WV 25550 –Mitchell Smith, Lab Director (304-675-4340 Email: msmith@pvalley.org)

- I-64 West from South Charleston
- Take Point Pleasant exit and follow 62 North thru town. (3-4 miles)
- Hospital is on the right on the main road thru town.

BRIDGEVALLEY CTC

PHLEBOTOMY CLINICAL SCHEDULES 2018

Phlebotomy star time: 7:00 AM except for CAMC LabWorks is 8:00 AM

Clinical Rotation June 25-28 7:00 AM

*Phleb clinical not required

| | |
|--------------------------|---------------------------------|
| Bratcher, Katlyn | * |
| Bratt, Rachael | General Hospital |
| Casdorph, Destani | Thomas Hospital July 2-6 |
| Gardner, Santanah | WCH Outpatient |
| Howie, Ashtyn | Teays Valley Hospital |
| McMullen, Adam | Memorial Hospital |
| Nichols, Michelle | Memorial Hospital |
| Pauley, Alicia | General Hospital |
| Ratliff, Katherine | LabWorks, MSOB 8 am |
| Romine-Swiney, Jordan | LabWorks Chesterfield 8 am |
| Watts, Tucker | St Marys Hospital |

CAMC Memorial 388-4190

CAMC General 388-6244

CAMC WCH 388-2386

CAMC LabWorks 388-5080

Thomas Memorial [304-766-3560](tel:304-766-3560)

| 2018 | WEEK OF | Jan 8-11 | Jan 15-18 | Jan 22-25 | Jan 29-Feb 1 | Feb 5-8 | Feb12-15 | Feb 18-22 | Feb 25-Mar 1 | Mar 4-8 | Mar 12-15 | Mar 19-22 | Mar 26-29 | Apr 2-5 | Apr 9-12 | Apr 16-19 | Apr 23-26 |
|-----------------------|---------|----------|-----------|-----------|--------------|---------|----------|-----------|--------------|---------|-----------|-----------|-----------|---------|----------|-----------|-----------|
| BVCTC | | | | | | | | | | | | | | | | | |
| Bratcher, Katlyn | | WH | WH | WH | MM | MM | MM | MBB | MBB | MBB | - | GC | GC | GC | Gcoag | WU | I/V |
| Bratt, Rachael | | GH | GH | GH | TVC | TVC | TVC | TVBB | TVBB | TVBB | MM | MM | MM | Mcoag | I/V | GU | - |
| Casdorph, Destani | | MBB | MBB | MBB | WH | WH | WH | I/V | - | Mcoag | MM | MM | MM | GU | MC | MC | MC |
| Gardner, Santanah | | MC | MC | MC | GU | GH | GH | GH | Mcoag | - | TMM | TMM | TMM | I/V | MBB | MBB | MBB |
| Howie, Ashtyn | | MM | MM | MM | I/V | Mcoag | - | TVC | TVC | TVC | MBB | MBB | MBB | TMU | WH | WH | WH |
| McMullen, Adam | | MH | MH | MH | GC | GC | GC | MBB | MBB | MBB | - | Mcoag | I/V | MM | MM | MM | GU |
| Nichols, Michelle | | TVC | TVC | TVC | TMBB | TMBB | TMBB | GU | I/V | - | WH | WH | WH | MM | MM | MM | Mcoag |
| Ratliff, Katherine | | MBB | MBB | MBB | MC | MC | MC | MM | MM | MM | Mcoag | MU | TVH | TVH | TVH | I/V | - |
| Romine-Swiney, Jordan | | TMM | TMM | TMM | Mcoag | MU | I/V | WC | WC | WC | GH | GH | GH | - | MBB | MBB | MBB |
| Watts, Tucker | | CM | CM | CM | SMBB | SMBB | SMBB | CC | CC | CC | I/V | - | CH | CH | CH | Ccoag | CU |

TVH = Teays Valley Hematology
 TVBB=TVH Blood Bank
 TVcoag= TVH Coag
 TMM =Thomas Memorial Micro
 TMBB= Thomas Blood Bank
 TMU = Thomas Mem Urinalysis
 TMH = Thomas Mem Hematology
 SMBB = St. Marys Blood Bank
 CM=Cabell/Hunt Micro
 CC = Cabell/Hunt Chemistry
 CH = Cabell/Hunt Hematology
 Ccoag = Cabell/Hunt Coag
 CU - Cabell/Hunt Urinalysis

GU=General Urinalysis
 GC=General Chemistry
 GH=General Hematology
 Gcoag=General Coag
 GP = General Phlebotomy
 WU=WCH Urinalysis
 WC=WCH Chemistry
 WH=WCH Hematology
 Wcoag= WCH Coag
 WP=WCH Phlebotomy

MBB = Blood Bank (Memorial)
 MM = Microbiology (Memorial)
 MC= Mem Chemistry
 MH = Mem Hematology
 MP = Mem Phlebotomy
 Mcoag = Mem Coag
 MU= Mem UA

I/V = Immunology/Virology (Memorial) 2 DAYS Tues and Wed

III. CLINICAL PRACTICUM READINESS

A. Student Health Records

- a. Each student participating in the Clinical Practicum has documented immunity to the following communicable diseases:
 - i. Rubella
 - ii. Rubeola
 - iii. Mumps
 - iv. Varicella (chickenpox)
- b. In addition, documentation of annual TB skin testing (PPD) or evaluation by a healthcare provider must be provided.
- c. If the student will be completing rotations during flu season (October 1 to April 30), documentation of the seasonal flu shot is required by all facilities.
- d. Completion of the Hepatitis B vaccine series is strongly recommended for all students who may be exposed to blood/body fluids in the performance of their clinical experience.

B. Required in-services

- a. JCAHO requirements and HIPPA education and documentation is required prior to the beginning of clinical site requirements. The manner this is to be done for each facility will be discussed in a later section.

C. Background Checks

- a. Background checks and drug screens are performed prior to entering the MLT program. Any student with a background check that is in violation of a BVCTC MLT Program or clinical facility policy or requirement will not be allowed to progress in the program. Students are responsible for the fees associated with background checks and drug screens.

D. Drug and Alcohol Testing

- a. BVCTC MLT Program requires drug and/or alcohol testing as follows:
 - i. Reasonable suspicion: Any student who demonstrates unusual, unexplained behavior in the agency environment or during clinical hours. Observable signs might include, but are not limited to:
 1. Slurred speech
 2. Glassy, red eyes
 3. Excessive sleepiness and disorientation in class
 4. Odor of alcohol on breath or person
 5. Unsteady gait
 6. Disoriented or confused behavior
 7. Significant changes in work habits
 8. Hallucinations
 9. Unexplained accident or injury
 10. Other clinical observations consistent with impairment
 11. Sloppy, inappropriate clothing and/or appearance
 12. Physically assaultive, unduly talking, exaggerated self-importance, making incoherent or irrelevant statements in the agency setting

8. Hallucinations

9. Unexplained accident or injury
 10. Other clinical observations consistent with impairment
 11. Sloppy, inappropriate clothing and/or appearance
 12. Physically assaultive, unduly talking, exaggerated self-importance, making incoherent or irrelevant statements in the agency setting
 13. Excessive sick days, excessive tardiness when reporting for clinical or class
 14. Missed deadlines, careless mistakes, taking longer than customary to complete work
- ii. Informed consent will be obtained. Fees associated with testing will be the responsibility of the student.
 - iii. The collection site will be in a standard collection area laboratory, or emergency department.
 - iv. The collection shall be performed by qualified medical personnel specifically trained in the collection procedure. Collection procedures will adhere to the required “chain of custody” protocol.
 - v. The student will be escorted to the collection site with the appropriate BVCTC representative, and will remain at the collection site until the required specimens are obtained.
 - vi. All consented tests results will be reviewed with the student by a health care provider designated by the agency.
 - vii. The student’s confidentiality will be strictly maintained. These results will be communicated only to the student, the Vice-President for Student Services, the physician reviewing the results with the student, and the Program Chair of the BVCTC MLT program.
 - viii. Records will be maintained in a separate file by the MLT program in a secure area. Requests for information will require a court order, or may be released by the student through written consent and liability waiver.
 - ix. The drugs to be tested may include, but not limited to:
 1. Cannabinoids
 2. Barbiturates
 3. Alcohol
 4. Amphetamines
 5. Cocaine
 6. Propoxyphene
 7. Benzodiazepines
 8. Opiates
 9. Phencyclidine
 10. Methaqualone
 - x. Students who refuse drug testing for any reason will be dismissed from the MLT program. Positive results without a current prescription will result in dismissal from the MLT program.
 - xi. **Professional Dress**
 - a. As representatives of BridgeValley Community and Technical College, students are expected to maintain a well-groomed, professional appearance consistent with medical asepsis and the policies of the clinical facilities. Failure to adhere to the specified guidelines can result in students not being permitted to participate in the clinical experience, and will be counted as a laboratory absence.
 - b. The approved uniform consists of:
 - i. White short-sleeved BVCTC uniform top. Pressed and wrinkle-free.
 - ii. Charcoal gray uniform pants. Pressed and wrinkle-free
 - iii. White leather or simulated leather clinical or athletic shoes without mesh/holes. (Minimal coloring of logo and soles. Clarify with faculty)

- iv. White socks or white or neutral hose
 - v. BVCTC student name and picture ID
 - vi. Students are required to purchase a polo bearing the school logo to be worn during certain on-site laboratory experiences and various off-site activities, other than the clinical rotations.
- c. Female Students
- i. Hair must be neatly groomed, off the face and off the collar. No ribbons or colored barrettes. Pony tails must be secured with a clip so as not to fall forward.
 - ii. Hair that is colored must be color that is a natural hair color.
 - iii. Make-up, if used, should be applied lightly. Fingernails may not extend beyond fingertips
 - iv. No nail polish and/or acrylic nails
 - v. No perfume or scented lotions
- d. Male students
- i. Hair must be neatly groomed, off the face and off the collar.
 - ii. Facial hair must be shaved or neatly trimmed and groomed.
 - iii. Fingernails may not extend beyond fingertips
 - iv. No cologne
- e. All students
- i. Good hygiene must be maintained including hair and oral hygiene.
 - ii. No jewelry, including body jewelry, is to be worn with the uniform except plain smooth metal wedding band and/or pierced earring studs limited to one in each ear lobe.
 - iii. All uniform dress is to be complete from the time the student enters the clinical agency until he/she leaves the agency.
 - iv. No smoking or use of tobacco in any form will be tolerated as it is seen as inappropriate student behavior and a violation of the program and clinical facilities' policies.
 - v. No gum chewing while in uniform.
 - vi. Tattoos must be covered
 - vii. Disposable lab coats will be provided to you by the clinical facilities and these lab coats are not to be worn outside the laboratory.
- xii. **Malpractice/Liability Insurance**
- a. For the protection of the student, malpractice insurance is required for the entire period of enrollment in clinical laboratory courses. This insurance will be provided by a group policy for the State of West Virginia when you are registered in a clinical laboratory course.
 - i. This policy covers MLT students regardless of setting, so long as the student is functioning within the student's role. Therefore, this malpractice/liability insurance policy does not cover individuals' employment by the facility.
- xiii. **Incident Reports**
- a. An incident is any event that is inconsistent with the routine operation of the health care institution or with quality patient care. An incident report must be completed when an event occurred that jeopardizes a patient's care or could result in damage to a patient, employee or visitor. It may be an accident or situation which might result in an accident. An incident may result in legal action against the institution, student, or faculty member, and adequate reporting is essential. Incident reports must be completed by the student/faculty involved in the incident. The following procedures should be followed in reporting incidents;
 - i. The procedure of the agency where the incident occurs should be followed in filing the report in that agency.

- ii. Documentation of the incident should be done on the student advising form.
- iii. Documentation of the incident should include:
 - 1. A summary of the incident, excluding patient and agency identification
 - 2. Description of actions taken as a result of the incident
 - 3. Description of the remedial instruction interventions taken with the student
- iv. The documentation of the incident becomes a part of the advising record which is kept on file in the MLT Program Director's office.

xiv. **Latex Allergies**

When working in the clinical setting or student laboratory, students may be exposed to latex and other allergens.

GOAL: To identify students who are allergic to latex, or at a high risk to develop a latex allergy; and to educate them of risk factors and ways to prevent negative outcomes.

POLICY: Latex-sensitive students will use only non-latex supplies. Latex-free gloves will be made available to students.

Prior to admission to the MLT student Lab and clinical rotations, all students that know they are latex-sensitive must have a letter from a physician stating the treatment that will be required in the event of an adverse reaction. The student must keep emergency medications with them at all times when involved with school-related functions/activities.

Procedure:

- 1. Identification of known or suspected latex-sensitive students becomes part of the student's permanent record.
- 2. All students will be provided information regarding the health risk associated with latex including the prevalence of latex sensitization, risk factors for sensitization, mechanisms to report potential problems with latex and basic management for latex-sensitive students. This education will be provided to all students at orientation.
- 3. All students with evidence of latex sensitivity by medical history or physical examination will be directed to a physician.
- 4. All students with evidence of latex sensitivity will be responsible for obtaining and wearing a medical alert bracelet, carry non-latex gloves and emergency medical instructions to include medications if applicable; this will be required prior to admission to the MLT student laboratory and clinical activities.
- 5. Faculty will be responsible for counseling students on the potential for latex sensitivity and identifying latex-containing items so that the student can avoid them whenever possible.
- 6. Latex-free gloves will be available to latex-sensitive students. It is the responsibility of all students and faculty to ensure compliance with this policy.

In case of life-threatening reaction, (anaphylaxis) in the MLT Student lab, an ambulance will be summoned. Any faculty or member may dial 911 from the nearest phone, stating that you have a life-threatening "latex emergency" and need an ambulance. Epinephrine will be needed. Do not handle the victim with any latex products.

xv. **Facility-Specific Information Manuals (for students to complete before rotation**

- a. Charleston Area Medical Center Laboratories
- b. Thomas Memorial Hospital
- c. Huntington VA Medical Center
- d. Montgomery General Hospital

CAMC Clinical Laboratories
MLT/MT Clinical Practicum Information Manual
Table of Contents

Prerequisites to Clinical Practicum

Require In-Services

Instructor Contacts and Telephone Numbers

Scheduling and Other Requirements

Dress Code

Directions and Parking

Student Time Sheet

CAMC PREREQUISITES TO CLINICAL PRACTICUM

1. CAMC Laboratories retains the right to limit the number of students in clinical practicum as accepted in the Clinical Affiliation Agreement.
2. Each student participating in the clinical practicum is in good standing at the school.
3. Each student must abide by all laws, rules and regulations and CAMC policies and procedures with respect to the confidentiality of patient medical information.
4. Each student will have documentation of TB testing (PPD or Quanteferon). If positive, documentation of evaluation and/or treatment by a healthcare provider. PPD results are only good for one year.
5. Completion of the Hepatitis B vaccine series is strongly recommended for all students who may be exposed to blood/body fluids in their performance of their clinical experience. Students may sign a school waiver if they refuse.
6. Each student will have documented immunity to the following communicable diseases:
 - Rubella
 - Rubeola - Measles
 - Mumps
 - Varicella (chickenpox)

Please note: If student is not immune, they must have recent documented booster shot or have documentation of (2) MMR vaccinations in the past. Also, Varicella, booster is not needed if student can produce 2 documented evidence of 2 vaccinations for Varicella.
7. NEW: Students 19 years or older must have documentation of TDAP immunization; Tetanus, Diphtheria, and Pertussis called TDAP.
8. All students must give documented proof of Flu Vaccine. Annually, each December, the school/organization will be requested to provide a report noting the type of Flu Vaccine received and **where** the vaccine was received (this is now required by the CDC of our entire workforce and students are considered part of the workforce).
9. **The school's program director/coordinator will ensure documentation of all requirements. He or She may be asked to produce them for accrediting agencies and contract requirements.**
10. CAMC Student Required In-services: ALL students must complete CAMC's required in-services prior to clinical rotations.

CAMC VISITING STUDENT/RESIDENT ROTATION

ORIENTATION AND INSERVICE COMPLETION INFORMATION

Orientation Completed by Student/Resident Prior to Arriving on Campus:

To register as a visiting student/resident please visit the camcinstitute.org website – utilize the following directions:

- 1) Go to <http://camcinstitute.org>
- 2) Select the “Education” menu option.
- 3) From the Education page select “Student Rotation Training”.
- 4) This will take you to the CAMC Health Education and Research Institute’s education portal (<http://cen3.camcinstitute.org/moodle/>).
 - a. New users will be required to create an account on the system. To do this, select the “Create new account” option found on the main page or the login page.
 - b. Returning users will need to login.
- 5) Once you have an account and are logged into the LMS, select the course(s) you are required to take from the “Course Links” menu at the top of the screen or from the Course Catalog at the bottom of the home screen. (e.g. Clinical Rotation Education 2018-19, CERNER Education 2018-19, Non-Clinical Internship 2018-19)
- 6) Selecting a course for the first time will take you to that course’s information page. If there are further course specific steps to complete this is where you will find that information. (i.e. The Clinical Rotation Education 2018-19 course will require you to fill out the “Assigned Clinical Education Rotation With Affiliated School” form to acquire a Course Key the first time you attempt to access the course.)
- 7) While logged into the system you should be able to view the list of courses you are enrolled in by selecting the “My Courses” link in the “Navigation” panel on the side of the screen or the from the “My Courses” menu item at the top of the screen.

Students visiting for a clinical rotation will be required to complete the section: “Clinical Rotation Education”.

Our Mission:

Striving to provide the best health care to every patient, every day.

IS/Help Desk ~ (304)388-4357 (for those that are provided computer access only)

- ❑ If you need further assistance with or encounter problems with the software, access or computer systems contact the help desk at (304)388-4357 (304-388-HELP) or inside dial 8-4357.

Safety

- ❑ Refer to Safety Department webpage located on the CAMC intranet site – CAMNet for key information and responsibilities in assuring a Safe Environment of Care or for information on how to report safety concerns.

Parking:

- ❑ General – use the Employee Parking Garage located on the hospital campus. You may show your student ID and purchase parking tickets at a discounted rate to park on this campus.

- ❑ Memorial – before 1:30 pm – students park at the CHERI building across MacCorkle Avenue. After 1:30 pm you can use the Employee parking garage located on 31st Street. Please press the help button on the gate in this area and identify yourself as a student and security will remotely lift the gate for you to enter.
- ❑ Women and Children’s – park in Employee Parking located on Pennsylvania Avenue on the right just past the hospital and the WV Lottery building. Please press the help button on the gate in this area and identify yourself as a student and security will remotely lift the gate for you to enter.

ID Badge

- ❑ Please wear your school ID badge – the badge should be displayed from the neck or chest high pocket area of your school uniform or lab coat.
- ❑ Your school ID - worn with appropriate school required uniforms/labcoats - will identify you as a student learner in our facilities and provide you access to parking
- ❑ Your school ID must be worn at all times when you are in the clinical settings at CAMC.

Students Returning for Additional Rotation(s) in subsequent academic Year

If you plan to return for additional rotation(s) in an subsequent academic year - it will be necessary for you to repeat all of the inservice programs. Please contact Mitch Wallace at 304-388-9994 for an *enrollment key* to complete inservices in a subsequent academic year. Our inservice programs for students are updated annually based upon an academic calendar – July – June.

Clinical Site Review

- ❑ CAMC Institute Education Division will confirm /receive all required documentation from the school/organization as outlined in the affiliation agreements. A review of all affiliation agreements to assure that they are current for registering students will be conducted annually. CAMC Institute Education Division will provide on-site CAMC clinical managers notification of completion of inservice requirements for each student registered at this clinical site.
- ❑ CAMC Institute Education Division will register appropriate students (Physician Assistant, Medical Students and Visiting Residents) for CAMC computer login/passwords for CAMC CAMNet and CERNER applications.

School/Organization Review

- ❑ Assures that students provided clinical site registration materials are students’ currently in good academic standing and currently registered for a clinical assignment. The school/organization representative must coordinate clinical assignment placement with appropriate CAMC coordinators/professionals prior to providing the student with clinical assignment site registration information.
- ❑ The school/organization must assure that all students are current with immunizations and assure that students that complete clinical assignments between and including the months of October and April have had a current Flu Vaccine. Annually, each December, the school/organization will be requested to provide a report noting the type of Flu Vaccine received and **where** the vaccine was received (this is now required by the CDC of all our workforce and students are considered part of the workforce).

For Questions or Concerns contact the CAMC Institute Division of Education – 304-388-9960.

INSTRUCTOR CONTACTS AND TELEPHONE NUMBERS

Laboratory Education Coordinator

Cassie J. Chenoweth MS, MLS(ASCP)DLM^{CM}
Quality Management Coordinator
388-8492
cassie.chenoweth@camc.org

Memorial Hospital Lab

Phlebotomy – Carol Bridges 388-9680 carol.bridges@camc.org

Microbiology: Sandy Mason – 388-9353 sandy.mason@camc.org

Virology/Immunology: Becky Ashley 388-4308 becky.ashley@camc.org
Linda Minnich 388-4308 linda.minnich@camc.org

Chemistry, Hematology, Coagulation, Urinalysis: (Automated Procedures Lab) 388-5953
Jade Chaney 388-8246
Angie Bergdorf 388-9209 angie.bergdorf@camc.org

Transfusion Services: Susie Halstead – 388-4236
Patricia Williamson – 388-8964
patricia.williamson@camc.org

General Hospital Lab

Telephone Number: 388-6244

Contact: Tammy Nelson 388-7867 tammy.nelson@camc.org

Contact: Patty Costa 388-7889 patty.costa@camc.org

Women's and Children Lab

Telephone Number: 388-2381

Contacts: Kim Ewers 388-2611 kim.ewers@camc.org
Nasser Larijani 388-2386 nasser.larijanie@camc.org

Teays Valley Hospital

Telephone Number 304-757-1770
Contacts: Angie Warner 757-1769
Diane Dorsey 760-6552

CAMC SCHEDULING

Scheduling and Hours

All efforts have been made to schedule students as required. You are expected to report to your scheduled clinical site on time.

Procedure for Calling in Absent or Tardy

CAMC Laboratories require that if you are unable to report to your scheduled shift, you must call at least one (1) hour prior to your arrival time. Also, please call ahead to the appropriate lab if you are going to be tardy or late for a scheduled shift.

OTHER REQUIREMENTS

Weather

If weather emergencies and heavy snow create hazardous conditions and results in your school, technical college or university being closed, you will not be required to report to your clinical practicum. Please call your department supervisor or contact person to report that you will not be present.

Leaving Your Work Area

Always advise your preceptor or supervisor when you are leaving the work area. You must receive permission from the supervisor if you need to leave company buildings during your scheduled hours.

Meal Periods and Rest Breaks

A meal period of thirty (30) minutes is generally provided for each 8 hour shifts. A reasonable attempt will be made to provide you with one fifteen (15) minute rest period during an 8 hour shift. Occasionally, however, because of the workload in your area, this may not be possible.

Telephones/Cell Phones

Our telephone system is a vital link to our communication system. For this reason, it is important that you use the telephone for business calls only. Pay phones are available for your personal calls. Cell phones and wireless communications are allowed in public use, non-patient areas. Use of cell phones is restricted to meal periods and rest periods.

Tobacco Use

Tobacco use is prohibited inside all CAMC buildings and all CAMC outside property. CAMC has a smoke-free campus. Use of tobacco products is permitted only at meal break.

CAMC LABORATORY DRESS CODE

To ensure that employees present a professional image to the public, patients, and visitors, the laboratory requires that all employees wear appropriate attire while at work, conducting company business, or representing the company at functions outside of the laboratory.

Employees are to present a business-like appearance by wearing clothing appropriate to their particular work area, following the guidelines set forth by laboratory management staff.

Employees will be required to comply with position-specific guidelines.

HAIR See Employee Handbook

JEWELRY See Employee Handbook

NAIL AND COSMETICS See Employee Handbook

NAME TAGS See Employee Handbook

SHOES

Shoes have to be clean and predominately leather upper, provide safe secure footing, offer protection against hazards, and be quiet for the comfort of the patients. Closed-toed clogs are permissible in areas where hazardous chemicals are not in use. The following are not acceptable:

- sandals/ flip flops
- canvas shoes
- any type of footwear with open toes

CLOTHING

Laboratory Management Staff and Office Personnel: Business attire or scrub uniforms may be worn with the exceptions below.

Laboratory Personnel- all departments including phlebotomists, lab assistants, and technical personnel : Any colored scrub uniforms with the exception of the colors, prints, and patterns below, are acceptable:

- royal blue and white - no prints
- wine - no prints
- hunter green - no prints
- navy blue
- seal blue with CAMC imprinted
- green top and black bottoms
- grey

CAMC EMPLOYEE HANDBOOK

DRESS CODE AND APPEARANCE

Patient satisfaction and patient safety are critical to the success of the company. To ensure that employees present a professional image to the public, patients and visitors and to maximize safety for our patients and staff, the following guidelines for dress and appearance are in effect.

The employee identification badge (ID) is expected to be part of each employee's regular attire and should be visible at all times while on company property. The ID badge should be attached to the employee's clothing at shirt pocket or lapel level with the employee photo facing forward. Retractable badge holders displaying the company logo may be used to hold ID badges, but must hang within the shirt pocket or lapel level. Retractable badge holders displaying advertising or other company logos are not permitted. ID badges are not to be defaced in any manner, nor will the employee's picture be covered with stickers or any other item.

The company requires that all employees wear appropriate attire while at work, conducting company business, or representing the company at functions outside of the organization. Employees are to dress professionally by wearing clothing appropriate to their particular work area, following the guidelines set forth by that department. Managers will provide employees with departmental policies regarding appearance and attire.

Various departments or areas of the company will have approved required uniforms or guidelines for attire. Employees will be expected to comply with position specific guidelines.

If the department permits wearing jeans, the jeans must be neat, clean and must not be torn. Shoes will be clean and appropriate to the work area. The only promotional t-shirts permitted are ones bearing the company logo. Uniforms or other attire provided by the company, such as scrub suits, are not to be worn off company premises. Although no deposit for company owned uniforms is required, employees will be charged for uniforms that are lost or willfully damaged. At termination of employment, employees will be required to return all company uniforms. Hair must be clean, well-groomed and present a professional image. Bright or unnatural colors or unusual hairstyles are not allowed.

Facial jewelry, including but not limited to, eyebrow rings, nose rings, lip rings, and tongue studs, is not professional and is not allowed to be worn during work hours.

Earrings should be small and no more than two per ear are allowed. Ear gauges and other forms of ear ornamentation are not permitted.

Tattoos are permitted but not on the face and neck. Tattoos must not be offensive to the reasonable person. Tattoos cannot be discriminatory in nature, therefore, not based on race, color, age, religion, national origin, sex, disability, or veteran status. Tattoos that are considered discriminatory or offensive must be covered at all times. In addition to appropriate attire, employees are required to practice good grooming and personal hygiene as a condition of employment. This includes not using perfume, cologne, or fragrances to which many are allergic and/or sensitive. Employees should report to work clean and free of body odor.

Employees that work in a patient care area or area that prepares food or sterile products for patient use are prohibited from wearing any type of artificial nails. Natural nail tips are to be kept less than ¼ inch long. Management has the right to address any of the items set forth in this policy and to enforce more stringent guidelines for their specific work areas due to safety concerns or customer perception concerns. Employees who report for work inappropriately attired or in direct violation of this policy will be sent off duty.

Employees who want to request an exception to this policy for religious or medical reasons should contact the human resources department.

DIRECTIONS AND PARKING

Directions to the Memorial Laboratory:

1. Travel to Memorial Hospital
2. Take MacCorkle Avenue west (Rt.61) from the 35th Street Bridge exit of I-64
3. Make a left at 31st Street.
4. Immediately make a right into a parking lot (no charge parking) (this parking lot is across the street from the hospital).
5. You will need to cross MacCorkle Avenue and walk to the main hospital entrance.
6. Take elevator to basement. Follow signs to the Laboratory
7. Laboratory is located beside the cafeteria and a plant atrium
8. If the parking lot across the street is full, students then will park in the employee parking garage.
9. The garage is located on the left of the WVU Building. Students will use the intercom at the entrance gate to gain access to the employee garage. The security officer will not grant access to the garage until he verifies that the lot is full via video camera. Students parked in the visitors & patients parking garage in front of the hospital will be charged for parking.

Directions to General Hospital Laboratory

1. Travel to the General Hospital
2. Enter parking garage and take parking ticket. Follow signs to park
3. Parking is \$3.00/day, but you can purchase from Security Desk a 10 passes for \$10.00. This would equal \$1.00/day to park. The passes are only valid for parking at General and will not be accepted for payment at the Memorial or Women & Children's.
4. Take elevator to first floor
5. Follow ramp that goes upward.
6. Bear right between the Security Desk and Information Desk.
7. After passing between desks, bear right passing the outpatient collection laboratory.
8. Walk up to the closed door straight ahead and push the buzzer to open the door.
9. Take the elevators on your left to the basement.
10. Turn left after leaving elevators, then another left.
11. Enter through two sets of double doors to the laboratory.

Directions to the Women's and Children Laboratory:

1. Travel to the Women's and Children's Hospital on Pennsylvania Avenue.
2. Students will park in the large employee parking lot past the hospital on the right.
3. If you arrive prior to 8:00 AM the gate will be open and enter and park in any vacant spot.
4. If you arrive past 8:00 AM, press the button and talk to security and they will open the gate.
5. Enter through the door to the medical staff office building. This building connects to the hospital. Continue down hallway to the end, past Human Resources.
6. The laboratory is on the left before exiting the hospital. (follow signs)

Directions to Teays Valley Hospital Laboratory

1. From I-64, take the WV-34 exit, Exit 39, towards Teays Valley.
2. Turn left on to WV-34
3. Turn right on to Hospital Drive.
4. 1400 Hospital Drive is on the right.
5. Look for signs for visitor parking.
6. Go to main entrance and the laboratory is on the left through the lobby.

Directions to CAMC LabWorks on Chesterfield Avenue

1. If traveling I-77 South or I-64 East take exit 98 (35th Street)
 2. Go to light at corner of 35th Street and MacCorkle Avenue
 3. Turn Right onto MacCorkle Avenue
 4. Go to stop light at corner of 31st Street and MacCorkle Avenue
 5. Turn Left onto 31st Street (Go through underpass)
 6. At the stop sign (corner of 31st and Chesterfield Ave) turn Right
 7. CAMC LabWorks is the second building on the Right.
-
1. If traveling East on MacCorkle Avenue (coming from So. Charleston)
 2. At the corner of 31st and MacCorkle Avenue turn Right (Go through underpass)
 3. At the stop sign (corner of 31st and Chesterfield Ave) turn Right
 4. CAMC LabWorks is the second building on the Right.
-
1. If traveling West on MacCorkle Avenue (coming from Marmet/Kanawha City)
 2. Go to stop light at corner of 31st Street and MacCorkle Avenue
 3. Turn Left onto 31st Street (Go through underpass)
 4. At the stop sign (corner of 31st and Chesterfield Ave) turn Right
 5. CAMC LabWorks is the second building on the Right

Directions to CAMC LabWorks (Medical Staff Office Building)

- Travel to Memorial Hospital
- Take MacCorkle Avenue west (Rt.61) from the 35th Street Bridge exit of I-64
- Make a left at 31st Street.
- .Immediately make a right turn into a parking lot (no charge parking) (this parking lot is across the street from the hospital).
- You will need to cross MacCorkle Avenue and walk to the Medical Staff Office Building.
- Take elevator to basement
- Laboratory is located near the elevators
- If this lot is free parking is full then you will need to park in the visitors parking. See map to Memorial Hospital parking.
- Parking is \$3.00/day, but you can purchase from Security Desk a 10 passes for \$10.00. This would equal \$1.00/day to park.

Cabell-Huntington Student Rotation Requirements

All students must complete the following prior to clinical rotations

1. Go to <http://cabellhuntington.org/employment/non-employee-orientation/>
2. Review the Hospital Orientation Booklet
2. Download and fill out the **“Non-Employee Attestation Form”** and the **“Non-Employee Confidential Agreement”**

Non-Employee Orientation

[Hospital Orientation Booklet](#)

[PDF - 1.7MB]

[Non-Employee HR Requirements Grid](#)

[PDF - 89KB]

[Non-Employee Attestation Form](#)

[PDF - 50KB]

[Non-Employee Confidentiality Agreement](#)

[PDF - 119KB]

UNAVAILABILITY OF CLINICAL SITES
(WHEN APPLIED EXPERIENCE CAN NOT BE GUARANTEED)

If for some unforeseen reason, a clinical site is not available for a student during a previously scheduled rotation, the MLT Program Director and/or the MLT Clinical Coordinator will attempt to change the schedule and place the student in another clinical site. If that is not possible, the student will be required to complete the rotation during different dates/times/shifts, etc. such as spring breaks, weekends and/or after the completion of the school semester. At this point, the student may have to receive an “incomplete” for the class until the rotation is complete.

BEHAVIORAL CONDUCT

While a student is representing BrideValley Community & Technical College as a Medical Laboratory Technology student, he/she will be expected to conduct him/herself in such a manner to reflect favorably on him/herself and on the MLT program. If a student acts in such a manner as to reflect immature judgment or disrespect for others, the student will be called before the MLT Program Director for determination of his/her status in the MLT program. Inappropriate conduct is grounds for dismissal from the MLT program.

STATEMENT OF CONFIDENTIALITY

Students must remember at all times that the information obtained in a clinical laboratory or hospital pertaining to a patient is strictly CONFIDENTIAL. This means that all lab results are to be directed ONLY to physicians or those designated within the organization to receive such information. Students shall not discuss with patients, parents, friends, relatives or other non-designated hospital personnel the results of tests or the nature of any illness. This information is given to the patient only by the physician. Failure to comply with patient confidentiality is cause for immediate dismissal from the MLT Program.

WEATHER/EMERGENCY ISSUES

See Student Handbook for Weather/Emergency Issues.

ATTENDANCE POLICIES

One hundred percent attendance is expected, as well as punctual attendance on all clinical days. Absences from clinical rotations for reasons other than health or emergencies will not be tolerated and the student may be subject to withdrawal from the MLT program. It is recommended that all missed clinical days be made-up when possible. Missed days will be handled on an individual basis by the MLT Program Director. Should a student miss more than three clinical

days during the clinical practicum, an incomplete may be given until such time is made-up. Each case will be handled on an individual basis. Three days tardy by 15 minutes or more will result in the student being placed on probation. Should the behavior continue, the student may be withdrawn from the MLT program at the discretion of the MLT Program Director.

It is the student's responsibility to have a clinical instructor sign his/her attendance sheet each clinical day which serves as a record of their attendance.

The student must notify the clinical coordinator or instructor, and the MLT Program Director of any absence or tardy by 10:00 AM the same day (ASAP preferred). Failure to do so will result in a 5% reduction from the student's final clinical grade for each offense. Students can contact the MLT Program Director at 304-205-6654 or 304-444-1625. Leave a message on voice mail when the MLT Program Director is not available. If messages are left with other college personnel, students must get the name of the person with which the message is left.

PERFORMANCE OF SERVICE WORK

Service work, in relation to the MLT program, is work or procedures performed by laboratory staff which directly or indirectly relate to patient care. MLT students perform service work only when it is a necessary part of their clinical training and only under supervision.

MLT students are not expected to perform work or procedures in place of a laboratory staff member. MLT students do perform service work when it relates to the achievement of their clinical objectives or to become more proficient at a procedure relating to the present clinical area of study. However, students are not to be used in place of laboratory employees.

STUDENT EMPLOYMENT

BVCTC neither approves or disapproves of student paid employment outside of scheduled class or laboratory training times. BVCTC assumes no liability for health care work or any work performed by its students as a result of this employment or any work not related directly to the student's approved clinical training.

It is the student's responsibility to prevent outside employment from interfering with their college studies. In addition, the MLT program is not required to make any accommodation in the program regarding a student's employment.

TRANSPORTATION

All transportation to and from the clinical sites is the responsibility of the student.

STUDENT LABORATORY TESTING

MLT students are only to perform laboratory tests approved and supervised by their clinical instructors. Students are to perform laboratory tests with minimum supervision only when they have proved proficiency through previous performance and with their clinical instructor's approval. Any laboratory work performed by a MLT student must be signed/approved by the clinical instructor supervising them before being reported.

HOURS

Hours for laboratory training may vary somewhat with each hospital and clinical area. The MLT Program Director will inform students of any such variances prior to the start of the clinical rotations. The typical time is 7:00 AM - 3:00 PM. Clinical instructors may ask students to arrive at other times on selected days so that the student may experience certain procedures which would otherwise be missed.

LIBRARY/PERIODICAL/TEACHING RESOURCES

All hospitals have indicated that students are allowed to utilize their medical libraries, as well as those resources available within the laboratories. Students are to ask for assistance when locating these resources, permission to use them in case someone else is presently using them and are not allowed to remove them from their locations (lab or library) unless given permission to do so by a person authorized to do so.

Teaching resources such as hematology/microbiology slides, kodachromes, computer programs, internet, old proficiency testing materials, and various specimens should use the same procedure as above.

EVALUATIONS/CLINICAL OBJECTIVES

Student evaluations will be completed on each student upon completion of each clinical area. It is the responsibility of the student to print the forms from their handbook when needed and to give these evaluation forms (filled-out with student name, dates and hospital name) to their clinical instructors with adequate time for them to fill them out prior to the end of the student's rotation.

It is preferred that each student collect their evaluations at the end of their rotation and return it to the MLT Program Director at the beginning of the next class meeting. These forms should be signed by both the student and the clinical instructor. In the event the clinical instructor has not completed your evaluation at the end of your rotation, there are mailing instructions on the evaluation forms for the evaluator to follow.

Student's suggestions related to how they perceive this situation might be rectified if applicable:

Student Signature: _____ Date _____

BridgeValley Community and Technical MLT Program Student Time Sheet

Student: _____ Section _____

| | Date | Time IN | Time OUT |
|-------|------|------------|-------------|
| Sun | | | |
| Mon | | | |
| Tues | | | |
| Wed | | | |
| Thurs | | | |
| Fri | | | |
| Sat | | | |
| Sun | | | |
| Mon | | | |
| Tues | | | |
| Wed | | | |
| Thurs | | | |
| Fri | | | |
| Sat | | | |
| Sun | | | |
| Mon | | | |
| Tues | | | |
| Wed | | | |
| Thurs | | | |
| Fri | | | |
| Sat | | | |
| Sun | | | |

The instructor must validate student's time by signing below

Instructor's Signature _____ Date _____

Student's Signature _____ Date _____

EVALUATIONS/CLINICAL OBJECTIVES

Student evaluations will be completed on each student upon completion of each clinical area. It is the responsibility of the student to print the forms from their handbook when needed and to give these evaluation forms (filled out with student name, dates and hospital name) to their clinical instructors with adequate time for them to fill them out prior to the end of the student's rotation

It is preferred that each student collect their evaluations at the end of their rotation and return it to the MLT Program Director at the beginning of each class meeting. These forms should be signed by both the student and the clinical instructor. In the event the clinical instructor has not completed your evaluation at the end of your rotation, there are mailing instructions on the evaluation forms for the evaluator to follow.

CLINICAL IMMUNOHEMATOLOGY (BLOOD BANK)

COGNITIVE OBJECTIVES

After successfully completing the objective for MLAB 202 (Clinical Immunohematology, lecture and laboratory), after reviewing Blood Bank study questions, and after a period of learning and practical experience in the blood bank section of a clinical laboratory, the successful student will be able to provide correct responses regarding the following on a written multiple choice quiz, earning a grade of 70% or better. The student will be able to correctly:

- Describe an acceptable specimen that is to be used for a patient in Blood Bank including in your answer how long the sample may be used and stored.
- Discuss the genetics, biochemistry, and immunology of the following blood groups: ABO, Rh, Hh, MNSs, Lewis, Duffy, Kell, Kidd, Lutheran, P and I.
- Translate the Rh system between the Fisher-Race and Wiener nomenclatures.
- Explain why the various phases are used for the detection of alloantibodies and autoantibodies.
- Discuss the use of enhancement media for the detection of alloantibodies and autoantibodies.
- Discuss the importance of the compatibility testing.
- Explain the direct and indirect antiglobulin techniques and discuss when each would be used.
- Discuss the various types of transfusion reactions including the symptoms that the person might have and what the results of the transfusion reaction work-up would be.
- Explain how the blood bank evaluates transfusion reactions.
- Discuss the preparation, shelf life and storage conditions for the following components: packed cells, leuko-reduced packed cells, frozen packed cells, random platelets, apheresis platelets, fresh frozen plasma and cryoprecipitate.
- Describe what type of patient or condition would receive the above components.
- Discuss the tests that are performed on donor units at the donor center and at the hospital transfusion center. Explain why each is necessary.
- Discuss the criteria for donating blood including in your answer whether an exclusion is for the protection of the donor or the recipient.
- Describe the pre- and post- natal testing that is done for the detection of hemolytic disease of the fetus and/or newborn (HDFN)
- List the antibodies that can cause HDFN including the severity of each.
- Discuss the treatments that may be used for HDFN.
- Explain the use of Rho-Immune Globulin including the criteria that are used for postnatal delivery.
- Discuss the fetal stain used to determine the amount of fetal bleed including the principle of the procedure and why the test is done.
- Discuss the following problem-solving techniques and explain when each would be used: antibody identification, elution, adsorption, pre-warming technique, and titration of antibodies.

BVCTC Blood Bank Laboratory Rotation MLT Objectives/Competency Form

Name _____ Location _____ Date _____

A competent student should be able to:

1. Apply Blood Banking theory to Blood Banking procedures
2. Perform Blood Banking procedures with moderate supervision.
3. Identify abnormal results, instrument problems, and resolve situation or seek appropriate assistance.

At the end of the section rotation, the student should successfully perform the following as appropriate to that section's procedures. Rate the student with the following scale:

- (5) Student demonstrates competency in the stated objective
- (4) Student usually demonstrates competency with some instruction
- (3) Student demonstrates competency only after repeated instruction
- (2) Student occasionally demonstrates competency only after repeated instruction
- (1) Student rarely successful in performing task without direct supervision.
- (0) Student cannot successfully perform task

| Blood Bank | 5 | 4 | 3 | 2 | 1 | 0 | N/A |
|---|---|---|---|---|---|---|-----|
| (1) The student is able to process specimens for blood bank properly while demonstrating knowledge of proper specimen requirements, handling and problem solving throughout the process. | | | | | | | |
| (2) The student will properly utilize the clinical laboratory information system. | | | | | | | |
| (3) The student can perform the quality control procedures utilized in the blood bank department properly. | | | | | | | |
| (4) The student demonstrates proper recording of blood bank results which includes results being complete and legible. | | | | | | | |
| (5) The student maintains a safe, clean laboratory bench when performing analyses. | | | | | | | |
| (6) The student follows safety guidelines which includes proper use of personal protective equipment when needed. | | | | | | | |
| (7) The student grades agglutination reactions properly. | | | | | | | |
| (8) The student performs the following procedures and exhibits familiarity and understanding of each (as determined by the clinical instructor): <ol style="list-style-type: none"> (1) ABO and Rh Typing (minimum 10) (2) Crossmatch procedure (minimum 8) (3) Weak D procedure (minimum 5) (4) Antibody screen (minimum 10) (5) Antibody panel study (minimum 5) (6) Direct antiglobulin (Coombs) test (adult and cord blood) (minimum 8) (7) Elution procedure (minimum 2) (8) Absorption procedure (demonstration and/or discussion acceptable) | | | | | | | |
| 9. The student is able to determine Rh immune globulin candidacy and perform related tests. | | | | | | | |

| | | | | | | | |
|---|--|--|--|--|--|--|--|
| 10. The student has a basic understanding of the transfusion reaction work-up process. | | | | | | | |
| 11. The student understands and performs the fetal screen (fetal blood screen) procedure. | | | | | | | |
| 12. The student understands and/or performs the Kleihauer-Betke acid elution stain. (Demonstration and/or discussion acceptable) | | | | | | | |
| 13. The student understands and performs Rh phenotyping. (minimum of 2) | | | | | | | |
| 14. The student understands the purpose for antigen typing donor units and can perform such testing. | | | | | | | |
| 15. The student demonstrates an understanding of antigens and reactivity of the antibodies of common blood group systems such as ABO, Rh, Kell, Lewis, etc. | | | | | | | |
| 16. The student utilizes different types of enhancement media properly. | | | | | | | |
| 17. The student is able to correctly interpret patient results as normal or abnormal and alerts clinical instructor of abnormal results. | | | | | | | |
| 18. The student can correlate commonly encountered results with possible causes or disease states with limited assistance from the clinical instructor. | | | | | | | |
| 19. The student performs/observes routine maintenance and troubleshooting procedures for instruments. | | | | | | | |

Additional Procedures/Comments:

Student demonstrates competency sufficient for entry level professional? Yes _____ No _____

Comments:

Student needs to improve on items listed below:

Preceptor/Supervising Tech: _____ Date _____

Student Signature _____ Date _____

BVCTC MLT Faculty _____ Date _____

CLINICAL CHEMISTRY COGNITIVE OBJECTIVES

After successfully completing the objectives for MLAB 201 (Clinical Biochemistry, lecture and laboratory), after reviewing Clinical Chemistry study questions, and after a period of learning and practical experience in the chemistry section of a clinical laboratory, the successful student will be able to provide correct responses regarding the following on written exams, earning a grade of 70% or better. The student will be able to correctly:

- List and describe safety procedures and precautions employed in collecting, accessioning, and testing specimens in the chemistry section.
- List and describe all test procedures performed in the chemistry rotation.
- List and describe the proper specimen collection procedure for all tests performed in the chemistry rotation including any special handling procedures and preparations.
- List and describe the quality assurance procedures and technical quality control limits on all tests performed by the student in the chemistry section
- List expected values and reporting units for each chemical test performed by the student. Indicate approximate variations expected due to patient's sex, age, illness, and therapy.
- Recall and list common disease conditions associated with abnormally high or low results for each biochemical test performed.
- Describe the principles of instrumental assays performed by the student in the chemistry section.
- List and describe routine maintenance requirements for instruments used in the chemistry section.
- List the tests and describe the main chemical reactions and methods of analyses involved with each assay on the complete chemistry profile.
- Recognize problems caused by technical or instrument problems as well as the physiological causes of problems or unexplained test results for the following analyses for all tests performed on the complete chemistry profile and blood gas analyzer.
- Discuss the physiological significance of the tests performed in the chemistry rotation.

BVCTC Clinical Chemistry Laboratory Rotation MLT Objectives/Competency Form

Name _____ Location _____ Date _____

A competent student should be able to:

1. Apply clinical chemistry theory to clinical chemistry procedures
2. Perform clinical chemistry procedures after each week level with moderate supervision.
3. Identify abnormal results, instrument problems, and resolve situation or seek appropriate assistance.

At the end of the section rotation, the student should successfully perform the following as appropriate to that section's procedures. Rate the student with the following scale:

- (5) Student demonstrates competency in the stated objective
- (4) Student usually demonstrates competency with some instruction
- (3) Student demonstrates competency only after repeated instruction
- (2) Student occasionally demonstrates competency only after repeated instruction
- (1) Student rarely successful in performing task without direct supervision.
- (0) Student cannot successfully perform task

| General Chemistry | 5 | 4 | 3 | 2 | 1 | 0 | N/A |
|--|---|---|---|---|---|---|-----|
| 1. Identify, handle, and process specimens properly. | | | | | | | |
| 2. Recognize specimen characteristics that may produce interferences and take appropriate action. | | | | | | | |
| 3. Analyze and evaluate quality control or perform corrective action to obtain acceptable results. | | | | | | | |
| 4. Recognize alert values, abnormal results, reportable ranges and reference ranges. | | | | | | | |
| 5. Maintains a clean and safe environment by utilizing proper PPE and disinfection procedures. | | | | | | | |
| 6. Performs required calculations. | | | | | | | |
| 7. Performs manual procedures or pre-treatment steps for analysis. | | | | | | | |
| 8. Performs manual dilutions. | | | | | | | |
| 9. Follows written and oral directions. | | | | | | | |
| Automated Chemistry Analyzers | | | | | | | |
| 1. Performs/observes preventive maintenance, calibration and function checks as appropriate. | | | | | | | |
| 2. Performs routine chemistry/immunoassay analysis on patient specimens. | | | | | | | |
| 3. As appropriate can enter and release results into LIS correctly. | | | | | | | |

Student demonstrates competency sufficient for entry level professional? Yes _____ No _____

Comments:

Student needs to improve on items listed below:

Preceptor/Supervising Tech: _____ Date _____

Student Signature _____ Date _____

BVCTC MLT Faculty _____ Date _____

CLINICAL COAGULATION COGNITIVE OBJECTIVES

After successfully completing the objectives for MLAB 200 (Clinical Hematology which included Coagulation) lecture and laboratory, after reviewing answers to coagulation study questions, and after a period of learning and practical experience in the coagulation section of a clinical laboratory, the successful student will be able to provide correct responses regarding the following on a written multiple choice quiz, earning a grade of 70% or better. The student will be able to:

- Determine the requirements for an acceptable sample for coagulation testing.
- Discuss the principle of the prothrombin time, partial thromboplastin time, fibrinogen and thrombin time assays.
- Describe the bleeding time test and explain the principle.
- Discuss some diseases that are associated with abnormal results in the above-mentioned tests.
- Explain what is occurring in Disseminated Intravascular Coagulation (DIC)
- Discuss the tests that would be used to determine if DIC were present including the principles of these tests.
- Explain the principle of the mixing studies test and when it would be used.
- Discuss the sources of errors in all procedures performed in the coagulation/hemostasis sections of the laboratory.

BVCTC Coagulation Laboratory Rotation MLT Objectives/Competency Form

Name _____ Location _____ Date _____

A competent student should be able to:

1. Apply clinical coagulation theory to clinical coagulation procedures
2. Perform clinical coagulation procedures level with moderate supervision after appropriate instruction.
3. Identify abnormal results, instrument problems, and resolve situation or seek appropriate assistance.

At the end of the section rotation, the student should successfully perform the following as appropriate to that section's procedures. Rate the student with the following scale:

- (5) Student demonstrates competency in the stated objective
- (4) Student usually demonstrates competency with some instruction
- (3) Student demonstrates competency only after repeated instruction
- (2) Student occasionally demonstrates competency only after repeated instruction
- (1) Student rarely successful in performing task without direct supervision.
- (0) Student cannot successfully perform task

| Coagulation | 5 | 4 | 3 | 2 | 1 | 0 | N/A |
|---|---|---|---|---|---|---|-----|
| 1..The student is able to process specimens for coagulation properly while demonstrating knowledge related to proper specimen requirements, handling and problem-solving throughout the process. | | | | | | | |
| 2.The student is able to organize and utilize reagents and materials in coagulation procedures properly. | | | | | | | |
| 3.The student will properly utilize clinical laboratory information system. | | | | | | | |
| 4.The student will correctly perform procedures related to quality control in the coagulation lab. These are to include: (1) Control selection and preparation (2) Analyzing controls (3) Evaluating results for run acceptability | | | | | | | |
| 4. The student demonstrates proper recording and reporting of coagulation results. | | | | | | | |
| 5. The student maintains a safe, clean laboratory bench when performing analyses. | | | | | | | |
| 6. The student is able to operate automated coagulation instruments to achieve PT and PTT results. | | | | | | | |
| 7. Specify any specialized tests that student performs and rate the performance for each one: (1) Bleeding time (2) FDP or FSP (3) Fibrinogen level (4) Factor assay (5) Thrombin time (6) Other | | | | | | | |
| 9.The student is able to correctly interpret patient results as normal or abnormal and alerts clinical instructor of abnormal results. | | | | | | | |
| 10. The student can correlate commonly encountered results with possible disease or therapy states with limited assistance from the clinical instructor. | | | | | | | |
| 11. The student performs routine maintenance and troubleshoots instruments used. | | | | | | | |

Additional Procedures/Comments:

Student demonstrates competency sufficient for entry level professional? Yes _____ No _____

Comments:

Student needs to improve on items listed below:

Preceptor/Supervising Tech: _____ Date _____

Student Signature _____ Date _____

BVCTC MLT Faculty _____ Date _____

CLINICAL HEMATOLOGY COGNITIVE OBJECTIVES

After successfully completing the objectives for MLAB 200 (Clinical Hematology, lecture and laboratory), after reviewing answers to hematology study questions, and after a period of learning and practical experience in the hematology section of a clinical laboratory, the successful student will be able to provide correct responses regarding the following on a written multiple choice quiz, earning a grade of 70% or better at the end of their rotation. The student will demonstrate the ability to complete the following:

- Discuss the requirements for an acceptable sample for hematology testing.
- Discuss the principles of all the procedures/parameters performed on the hematology analyzer.
- Discuss what is seen on the scatter gram.
- Discuss the functions of red cells, white cells and platelets.
- List the normal reference ranges for all parameters on the hematology analyzer.
- Discuss some conditions that would cause variations from the normal values.
- Discuss supravital stains and when they would be used in the hematology laboratory.
- Explain how cell counts are estimated from a peripheral blood smear.
- List and describe the morphological appearances that red cells may have.
- Describe the maturation of red cells and white cells.
- Explain how the nucleated red cells may affect the white cell count.
- Describe the inclusions that may occur in red and white blood cells.
- Explain how a manual white cell count is performed.
- Explain how a Reticulocyte stain is performed.
- Discuss the use of the sedimentation rate
- Explain the principle of the osmotic fragility test and when this test would be used.
- Discuss sources of error in all procedures performed in the hematology section of the laboratory.
- Correlate the counts obtained on the hematology analyzer with results obtained on a manual WBC differential count.
- For the following diseases, explain the appearance of cells on the blood smear:
 - Vitamin B12 deficiency
 - Folic acid deficiency
 - Aplastic anemia
 - Sickle cell anemia
 - Beta thalassemia
 - Iron deficiency
 - Lead poisoning
 - Severe infection
 - Infectious mononucleosis
 - AML
 - CML
 - ALL
 - CLL
 - Multiple myeloma
- Describe a synovial fluid cell count, differential and chemistry, specimen collection, storage, physiological theory, and principles of method of analysis.
- Describe the specimen collection, storage, physiological theory, and principles of method for serous fluid cell count, differential and chemical analysis.
- Describe the specimen collection, storage, cell count, differential, and chemical testing, physiological theory, and principles of method for specimens collected for CSF.
- Describe the appropriate specimen collection, physiological theory, and principle of methods for semen analysis.

BVCTC Hematology Laboratory Rotation MLT Objectives/Competency Form

Name _____ Location _____ Date _____

A competent student should be able to:

1. Apply clinical hematology theory to clinical chemistry procedures
2. Perform clinical hematology procedures with moderate supervision after appropriate instruction.
3. Identify abnormal results, instrument problems, and resolve situation or seek appropriate assistance.

At the end of the section rotation, the student should successfully perform the following as appropriate to that section's procedures. Rate the student with the following scale:

- (5) Student demonstrates competency in the stated objective
- (4) Student usually demonstrates competency with some instruction
- (3) Student demonstrates competency only after repeated instruction

- (2) Student occasionally demonstrates competency only after repeated instruction
- (1) Student rarely successful in performing task without direct supervision.
- (0) Student cannot successfully perform task

| Hematology | 5 | 4 | 3 | 2 | 1 | 0 | N/A |
|---|---|---|---|---|---|---|-----|
| 1. Identify, handle, and process specimens properly, including microtainer specimens | | | | | | | |
| 2. Student understands procedures for handling problem specimens such as cold agglutinins, and leukemias (ex., warming and diluting) | | | | | | | |
| 3. The student is able to organize and utilize reagents and materials in hematology procedures properly. | | | | | | | |
| 4. The student will properly utilize the clinical laboratory information system. | | | | | | | |
| 5. The student will correctly perform procedures related to quality control in the hematology lab. These are to include: (1) Control selection and preparation (2) Running controls (3) Evaluating results for run acceptability | | | | | | | |
| 6. The student demonstrates proper recording and reporting of hematology results. | | | | | | | |
| 7. The student maintains a safe, clean laboratory bench when performing analysis. | | | | | | | |
| 8. The student is able to properly operate automated hematology instruments to achieve CBC results that include the following parameters: RBC, WBC, Hemoglobin, Hematocrit, RBC indices, Platelets, Automated differentials, RDW and MPV. | | | | | | | |
| 9. The student is able to prepare at least 15 blood smears which exhibit the thick and thin areas necessary for the random distribution of cells on slides. | | | | | | | |
| 10. The student can stain blood smears properly. | | | | | | | |
| 11. The student correctly evaluates at least 15 manual WBC differentials to include RBC and PLT morphology as determined by the clinical instructor. | | | | | | | |
| 12. The student performs differentials on abnormal patients or resource slides and is able to recognize morphological abnormalities of RBC's, WBC's and Plt's with assistance from the clinical instructor. | | | | | | | |

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| 13. The student performs at least 5 erythrocyte sedimentation rates properly. | | | | | | | |
| 14. The student performs, observes or reviews procedures for hemoglobin S screening test. | | | | | | | |
| 15. The student calculates RBC indices (MCV, MCH, and MCHC) for at least 10 different blood specimens given the hemoglobin, hematocrit, and RBC count. | | | | | | | |
| 16. The student calculates the corrected WBC count for at least 10 specimens or instructor-generated examples given the uncorrected WBC and #NRBC/100 WBC's. | | | | | | | |
| 17. The student calculates the absolute leukocyte count for at least 10 specimens given the WBC count and % of each cell type from the differential. | | | | | | | |
| 18. The student correctly performs at least 5 reticulocyte counts on whole blood specimens with accuracy determined by the clinical instructor. | | | | | | | |
| 19. The student performs at least 5 manual WBC counts using the hemacytometer method on whole blood specimens within + or – 10% accuracy. | | | | | | | |
| 20. The student performs at least 5 platelet counts using the hemacytometer method on whole blood specimens within + or – 20% accuracy. | | | | | | | |
| 21. The student is able to correctly interpret patient results as normal or abnormal and alerts clinical instructor of abnormal results. | | | | | | | |
| 22. The student can correlate commonly encountered results with possible disease or therapy states with limited assistance from the clinical instructor. | | | | | | | |
| 23. The student performs/observes routine maintenance and troubleshoots instruments used. | | | | | | | |
| 24. The student performs at least 2 body fluid examinations within + or – 20% accuracy. (can be actual body fluids, simulated fluids, survey fluids, etc.) | | | | | | | |

Additional Procedures/ Comments:

Student demonstrates competency sufficient for entry level professional? Yes _____ No _____

Comments:

Student needs to improve on items listed below:

Preceptor/Supervising Tech: _____ Date _____

Student Signature _____ Date _____

BVCTC MLT Faculty _____ Date _____

CLINICAL IMMUNOLOGY/SEROLOGY/VIROLOGY

COGNITIVE OBJECTIVES

After successfully completing the objectives for MLAB 202 (Clinical Immunohematology which included serology—lecture and lab), after reviewing answers to serology study questions, and after a period of learning and practical experience in the serology section of a clinical laboratory, the successful student will be able to provide correct responses regarding the following on a written multiple choice quiz, earning a grade of 70% or better. The student will be able to correctly:

- Discuss the classes of immunoglobulins found in the body including serum concentration , functions, etc.
- Discuss hypersensitivity reactions.
- Explain what complement is and discuss the functions of complement.
- Discuss how complement may interfere in serology reactions and what should be done to eliminate this interference.
- Describe the various types of immunological procedures that are used in the laboratory including precipitation (including nephelometry and electrophoresis procedures), agglutination and labeled reactions. For each type of procedure, the principle of the procedure and sources of error should be included.
- Discuss the antibody detection for the following infectious diseases: syphilis, infectious mononucleosis, Lyme’s disease, HIV, hepatitis, rubella, streptococcal infections, Mycoplasma and TORCH.
- Explain what is occurring in auto immunity.
- Discuss the immunologic diagnosis of the following auto immune diseases: rheumatoid arthritis, systemic lupus erythematosus, and thyroid auto antibodies.
- Discuss inflammation and acute phase proteins.
- Discuss C-reactive protein and explain how it is measured (not high sensitivity)
- Explain the qualitative determination of Beta-Human Chorionic Gonadotropin testing.
- Define the following terms: prozone, antibody titer, diagnostic titer, biological false positive and cross-reacting antibody.
- Discuss the cells that are important in the immune system and explain what might happen when these cells are decreased in number or defective in function.
- Describe an acceptable specimen that is to be used for testing in the immunology laboratory.

BVCTC Immunology/Serology Laboratory Rotation MLT Objectives/Competency Form

Name _____ Location _____ Date _____

A competent student should be able to:

1. Apply clinical immunology/serology theory to clinical procedures
2. Perform clinical immunology/serology procedures with moderate supervision after appropriate instruction.
3. Identify abnormal results, instrument problems, and resolve situations or seek appropriate assistance.

At the end of the section rotation, the student should successfully perform the following as appropriate to that section's procedures. Rate the student with the following scale:

- (5) Student demonstrates competency in the stated objective.
- (4) Student usually demonstrates competency with some instruction.
- (3) Student demonstrates competency only after repeated instruction.
- (2) Student occasionally demonstrates competency only after repeated instruction
- (1) Student is rarely successful in performing task without direct supervision.
- (0) Student cannot successfully perform task.

| General Immunology/Serology | 5 | 4 | 3 | 2 | 1 | 0 | N/A |
|--|---|---|---|---|---|---|-----|
| 1. The student is able to process specimens for serology properly while demonstrating proper specimen requirements, handling and problem-solving throughout the process. | | | | | | | |
| 2. The student is familiar with the specimen requirements for common serology tests. (Fasting, serum, plasma, etc.) | | | | | | | |
| 3. The student properly utilizes or observes use of clinical laboratory information system when available. | | | | | | | |
| 4. The student can perform the quality control procedures utilized in the serology departments properly. | | | | | | | |
| 5. The student demonstrates proper recording and reporting of serology results. | | | | | | | |
| 6. The student maintains a safe, clean laboratory bench when performing analyses | | | | | | | |
| 7. The student recognizes normal and abnormal patient results and, when relevant, alerts clinical instructor of critical values. | | | | | | | |
| 8. The student can correlate abnormal results with commonly encountered disease states or conditions with limited assistance from the clinical instructor. | | | | | | | |
| 9. The student performs routine maintenance and troubleshoots serological instruments used. | | | | | | | |
| 10. The student is able to perform and interpret common serological tests correctly. | | | | | | | |
| 11. List the serological tests performed and the methodology utilized by each. | | | | | | | |

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| TEST | METHODOLOGY |
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| TEST | METHODOLOGY |
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Additional Procedures/Comments:

Student demonstrates competency sufficient for entry level professional? Yes _____ No _____

Comments:

Student needs to improve on items listed below:

Preceptor/Supervising Tech: _____ Date _____

Student Signature _____ Date _____

BVCTC MLT Faculty _____ Date _____

CLINICAL MICROBIOLOGY COGNITIVE OBJECTIVES

After successfully completing the objectives for MLAB 203 (Clinical Microbiology, lecture and laboratory), after reviewing Microbiology study questions, and after a period of learning and practical experience in the microbiology section of a clinical laboratory, the successful student will be able to provide correct responses regarding the following on a written exam, earning a grade of 70% or better. The student will be able correctly:

- Procedures and precautions employed for processing specimens for culture from each of the following specimen types:
 - CSF, blood, deep tissue aspirates, biopsy
 - Eye, ear
 - Genital
 - Stool
 - Throat, nasopharynx, sputum, bronchial
 - Urine
 - Wounds, abscesses
- Procedures and precautions for processing specimens from each of the above anatomical sites so that likely pathogens may be isolate and identified.
- Principle and procedure for Gram staining.
- Recognizing and recording microscopic features of Gram-stained preparations.
- Safety precautions to be employed with specimens.
- Names and descriptions of pathogens, commensals, and contaminants most likely found in each anatomical sites, by genus and occasionally by species.
- Names and purposes of plating and broth media on the attached list, including knowledge of supplements that make the medium nutrient, selective or differential.
- Correct application of incubation conditions for isolating frequently isolated pathogens on various media from typical anatomical sites. (see lists of organisms and media):
 - Aerobic at 35 degrees C
 - Microaerophilic at 42 degrees C
 - Capnophilic at 35 degrees C
 - Anaerobic at 35 degrees C
- Differential identification schemes for genera, groups, and some species of bacteria commonly isolated from clinical specimens (see list of bacteria).
- Colony morphology of helpful in identifying common bacterial genera, groups, and some species on isolation media (see lists of organisms and media) by differential growth, colony size, pigmentation, hemolysis type, satellitism, and carbohydrate fermentation.
- Appropriate application of classic biochemical tests performed in presumptive testing of bacteria, and names of reagents used in each.
- Procedures for maintaining quality results in organism identification and susceptibility testing, including use of standard procedures, QC of media, antimicrobials, and differential tests.
- Presumptive identification of common pathogens to genus and sometimes species level, given case histories, specimen, Gram stain information, colony morphology, and results of differential testing (see list of bacteria).
- Theory and procedures for setup and reporting of in vitro antimicrobial susceptibility tests by both agar diffusion and broth dilution methods.
- Priority for working up and reporting stain and culture results for blood and CSF.
- Association between one or more bacteria and diseases and conditions (see list) in which they occur.

BVCTC Microbiology Laboratory Rotation MLT Objectives/Competency Form

Name _____ Location _____ Date _____

A competent student should be able to:

1. Apply clinical microbiology theory to clinical microbiology procedures
2. Perform clinical microbiology procedures with moderate supervision after appropriate instruction.
3. Identify abnormal results, instrument problems, and resolve situation or seek appropriate assistance.

At the end of the section rotation, the student should successfully perform the following as appropriate to that section's procedures. Rate the student with the following scale:

- (5) Student demonstrates competency in the stated objective
- (4) Student usually demonstrates competency with some instruction
- (3) Student demonstrates competency only after repeated instruction
- (2) Student occasionally demonstrates competency only after repeated instruction
- (1) Student rarely successful in performing task without direct supervision.
- (0) Student cannot successfully perform task

| Microbiology | 5 | 4 | 3 | 2 | 1 | 0 | N/A |
|--|---|---|---|---|---|---|-----|
| 1. Student observes operations of microbiology department and notes daily and weekly patterns of workload. | | | | | | | |
| 2. Student properly logs microbiology results and is able to locate culture/Parasitology results. | | | | | | | |
| 3. The student properly utilizes or observes use of clinical laboratory information system. | | | | | | | |
| 4. The student inoculates cultures properly. | | | | | | | |
| 5. The student streaks for isolation/colony count properly. | | | | | | | |
| 6. The student performs urine colony count properly. | | | | | | | |
| 7. The student utilizes proper media for isolation of bacteria from the throat, wound, nose, ear, stool, CSF, urine, etc. | | | | | | | |
| 8. Student properly evaluates the suitability of clinical specimens submitted for processing in relation to procedural requirements, container, collection, identification, age and integrity. | | | | | | | |
| 9. Student is able to correctly perform quality control procedures in the microbiology lab. | | | | | | | |
| 10. Student organizes all material necessary to perform various microbiological tests. | | | | | | | |
| 11. Student performs gram stain procedure properly. | | | | | | | |
| 12. Student reviews gram stains on various specimen types. | | | | | | | |
| 13. Student recognizes differences between saliva and sputum on gram stains. | | | | | | | |
| 14. Student recognizes colony morphology of significant and insignificant bacteria, as well as contaminants on various types of cultures. | | | | | | | |
| 15. Student demonstrates understanding in the use of optochin discs. | | | | | | | |
| 16. Student demonstrates understanding in the procedures and methodologies utilized to perform biochemical and anti-microbial testing methods for many cultural types. | | | | | | | |
| 17. Student inoculates anaerobic cultures properly. | | | | | | | |

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| 18. Student understands the anaerobic incubation/identification process. | | | | | | | |
| 19. Student processes blood cultures properly. | | | | | | | |
| 20. Student performs Acid-Fast stain properly. | | | | | | | |
| 21. Student recognizes Acid-Fast bacteria. | | | | | | | |
| 22. Student utilizes commercial kits for the identification of organisms properly. | | | | | | | |
| 23. Student follows the progress of several cultures of different specimen types through the microbiology laboratory, recording the following information for clinical instructor's review: (1) Time receipt (2) Specimen identification (3) Source (4) Colonial appearance (5) Gram stain (6) Primary culture media used (7) Time of media inoculation (8) Subculture media used (9) Incubation conditions (10) Key biochemical tests results (11) Organism identification | | | | | | | |
| 24. The student performs/observes routine maintenance and troubleshoots instruments used. | | | | | | | |
| 25. The student is able to recognize common problems related to the microbiology department and provide solutions when feasible. | | | | | | | |

Parasitology

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|--|--|--|--|--|--|--|--|
| 1. Student understands technique for obtaining pinworm ova. | | | | | | | |
| 2. Student observes pinworm specimens for ova, when available. | | | | | | | |
| 3. Student prepares and examines fresh saline and iodine slide preparations for enteric parasites. | | | | | | | |
| 4. Student prepares fecal specimens by concentration methods and examines such preparations. | | | | | | | |
| 5. Student recognizes trophozoites, cysts, and ova of common intestinal parasites microscopically. | | | | | | | |

Additional Microbiology Procedures (Mycology, Virology, Etc)

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Student demonstrates competency sufficient for entry level professional? Yes _____ No _____

Comments:

Student needs to improve on items listed below:

Preceptor/Supervising Tech: _____ Date _____

Student Signature _____ Date _____

BVCTC MLT Faculty _____ Date _____

PHLEBOTOMY COGNITIVE OBJECTIVES

After successfully completing the objectives for MLAB 100 (Introduction to Clinical Lab Sciences and Phlebotomy, lecture and laboratory), reviewing the answers to study questions, and after a period of learning and practical experience in the phlebotomy section of a clinical laboratory, the successful student will be able to provide correct responses regarding the following on written exams, earning a grade of 70% or better. The student will be able to correctly:

- Discuss the procedure used to identify a patient.
- Explain the phlebotomy procedure including venipuncture, heel stick and finger stick.
- List the information that should appear on the label of the tube.
- Define and discuss “Universal Precautions”.
- Discuss the various tubes that are used in phlebotomy including additive solutions and for what test(s) each are used, including stopper color codes.
- Discuss the correct order in which various types of sample tubes need to be drawn (plain, blood culture, anticoagulated, coagulation, serum separator, etc.)
- Discuss appropriate procedures and materials involved when a blood sample is required from a patient in isolation.

BVCTC Phlebotomy Laboratory Rotation MLT Objectives/Competency Form

Name _____ Location _____ Date _____

A competent student should be able to:

1. Be able to perform satisfactory Venipuncture collections.
2. Perform correct patient identification, tube and vein selection.
3. Exhibit a responsible and caring attitude toward patients at all times.

At the end of the section rotation, the student should successfully perform the following as appropriate to that section's procedures. Rate the student with the following scale:

- (5) Student is always successful at performing task.
- (4) Student is usually successful at performing task.
- (3) Student is often successful at performing task.
- (2) Student is occasionally successful at performing task
- (1) Student is rarely successful at performing task.
- (0) Student cannot successfully perform task

| Phlebotomy | 5 | 4 | 3 | 2 | 1 | 0 | N/A |
|---|---|---|---|---|---|---|-----|
| 1. Greets patients, identifies self, explain procedures. | | | | | | | |
| 2. Properly verifies patients' name and identification with test requisition. | | | | | | | |
| 3. Organizes tubes and equipment for requested tests. | | | | | | | |
| 4. Properly selects vein, and follows Venipuncture procedure correctly. | | | | | | | |
| 5. Applies tourniquet | | | | | | | |
| 6. Examines both arms for prominent vein | | | | | | | |
| 7. Cleanses site properly and anchors vein | | | | | | | |
| 8. Inserts needle at appropriate angle | | | | | | | |
| 9. Apply tube, counteracting pushing pressure against tube holder | | | | | | | |
| 10. Looses tourniquet upon successful venous access | | | | | | | |
| 11. Properly handles tubes after collection and mixes tubes appropriately. | | | | | | | |
| 12. Cover site and remove needle | | | | | | | |
| 13. Immediately activates safety feature and disposes of needle in sharps container | | | | | | | |
| 14. Maintains pressure on puncture site | | | | | | | |
| 15. Properly labels tubes after blood is drawn. | | | | | | | |
| 16. Follows universal precautions, follows correct procedure for disposing of contaminated needles and lancets. | | | | | | | |
| 17. Performs capillary collections according to procedure. | | | | | | | |

Student demonstrates competency sufficient for phlebotomy? Yes _____ No _____

Does student need more time to successfully complete this rotation? Yes _____ No _____

Comments:

Preceptor/Supervising Tech: _____ Date _____

Student Signature _____ Date _____

BVCTC MLT PROGRAM
Venipuncture/Capillary Successful Blood Collections

| Date | Number of Successful Venipunctures | Signature of Preceptor | Signature of Student |
|--------------|------------------------------------|------------------------|----------------------|
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CLINICAL URINALYSIS COGNITIVE OBJECTIVES

After successfully completing the objectives for MLAB 205 (Clinical Urinalysis , lecture and laboratory), after reviewing the answers to urinalysis study questions, and after a period of learning and practical experience in the urinalysis section of a clinical laboratory, the successful student will be able to provide correct responses regarding the following on a written multiple choice quiz, earning a grade of 70% or better. The student will be able to correctly:

- Describe the physical examination of urine including the collection, storage, handling preparation, disease/clinical correlation, problem resolution.
- Describe the chemical examination of urine including the collection, storage, principles of methods, handling, prep, disease/clinical correlation, problem resolution.
- Describe the microscopic examination of urine including the collection, storage, handling prep, disease/clinical correlation, problem resolution.
- Describe the substances included in urine reducing substances.
- Describe the disease/clinical correlation associate with different reducing substances in urine.
- State the purpose, principle of method and the clinical utility of the SSA test.
- State the required collection, handling procedures, clinical significance and methodology for the analysis of urine porphyrins.
- Describe the urine pregnancy test including the collection, storage, handling prep, clinical correlation, problem resolution.
- Describe the procedure for performing a urine pregnancy test.
- State the required collection, handling procedures, clinical significance and methodology for the analysis of urine fats.
- Outline specimen collection, physiological theory, and principles of methods for the occult blood test.
- Outline specimen collection, physiological theory and principle of method for fecal fat analysis.
- Outline the appropriate specimen collection for fecal reducing substances and fecal pH.
- Describe the appropriate specimen collection, physiological theory, and principle of methods for the automated dipstick method of urinalysis.

BVCTC Urinalysis Laboratory Rotation MLT Objectives/Competency Form

Name _____ Location _____ Date _____

A competent student should be able to:

1. Apply clinical urinalysis theory to clinical urinalysis procedures
2. Perform clinical urinalysis procedures with moderate supervision after appropriate instruction.
3. Identify abnormal results, instrument problems, and resolve situation or seek appropriate assistance.

At the end of the section rotation, the student should successfully perform the following as appropriate to that section's procedures. Rate the student with the following scale:

- (5) Student demonstrates competency in the stated objective
- (4) Student usually demonstrates competency with some instruction
- (3) Student demonstrates competency only after repeated instruction
- (2) Student occasionally demonstrates competency only after repeated instruction
- (1) Student rarely successful in performing task without direct supervision.
- (0) Student cannot successfully perform task

| | Urinalysis | 5 | 4 | 3 | 2 | 1 | 0 | N/A |
|--|--|---|---|---|---|---|---|-----|
| | 1.The student is able to process specimens for urinalysis properly while demonstrating knowledge of proper specimen requirements, handling and problem-solving throughout the process. | | | | | | | |
| | 2.The student organizes and utilizes reagents and equipment involved in the urinalysis process properly. | | | | | | | |
| | 3.The student will properly utilize the clinical laboratory information system. | | | | | | | |
| | 4.The student will correctly perform procedures related to quality control in the urinalysis lab. These are to include: (1) Control selection and preparation (2) Analyzing controls (3) Evaluating results for run acceptability | | | | | | | |
| | 5.The student demonstrates proper recording and reporting of urinalysis results and related specialized tests. | | | | | | | |
| | 6.The student maintains a safe, clean laboratory bench when performing analyses. | | | | | | | |
| | 7.The student correctly classifies the appearance (color and degree of clarity) of urine specimens. | | | | | | | |
| | 8.The student is able to utilize and interpret the reagent-impregnated test strip properly (pH, protein, specific gravity, glucose, etc.) | | | | | | | |
| | 9.The student is able to perform and interpret urinary confirmatory tests accurately. (Copper reduction test, Icto test, acetest, protein turbidimetric, etc.) | | | | | | | |
| | 10.The student properly prepares urine specimens for microscopic analysis. | | | | | | | |
| | 11.The student properly scans urinary sediment under low and high power to determine both number estimation and identification of urinary sediment constituents. | | | | | | | |
| | 12.The student is able to routinely identify and quantitate commonly encountered urinary sediment constituents. (WBC's, | | | | | | | |

| | | | | | | | |
|---|--|--|--|--|--|--|--|
| RBC's, epithelial cells, common casts, common crystals, bacteria, etc.) | | | | | | | |
| 13.The student is able to identify and quantitate less frequently encountered urinary sediment constituents with the assistance and supervision of a clinical instructor. (cellular casts, rare crystals, oval fat bodies, parasites, etc.) | | | | | | | |
| 14.The student can correlate commonly encountered findings with possible disease or therapy states with limited assistance from the clinical instructor. | | | | | | | |
| 15.By the end of their urinalysis rotation, the student is able to complete common procedures in a reasonable amount of time. | | | | | | | |
| 16. The student performs routine maintenance and troubleshoots instruments used. | | | | | | | |

Additional Procedures/Comments:

Student demonstrates competency sufficient for entry level professional? Yes _____ No _____

Comments:

Student needs to improve on items listed below:

Preceptor/Supervising Tech: _____ Date _____

Student Signature _____ Date _____

BVCTC MLT Faculty _____ Date _____

BridgeValley MLT Program
Clinical Rotation Evaluation of Affective Domain

Name _____ Dates _____ Course _____

RATE THE STUDENT ACCORDING TO OBSERVED BEHAVIOR. PUT AN "X" IN ONE BOX PER CATEGORY

| 35 points possible | 1 pts | 0.5 pts | 0 pts |
|---|---|---|--|
| | Meets standards at least 90-100% of the time | Meets standard with few reminders or corrections | Needs improvement in this area See Comments |
| 1. Professional Appearance | | | |
| Arrives on time daily, and attends consistently, calls if absent or late | | | |
| Follows program dress code 100% of the time | | | |
| Free of distracting odors (cigarette smoke, body odor, strong cologne, excessive jewelry, etc) after notification | | | |
| 2. Professional Behavior | | | |
| Communicates questions, comments, ideas in a professional manner | | | |
| Uses appropriate language and volume control 100% | | | |
| Treats others with respect | | | |
| Reframes from participating in gossip and distracting personal conversations | | | |
| 3. Appropriate response to feedback | | | |
| Accepts instruction and constructive criticism maturely | | | |
| Changes behaviors upon feedback | | | |
| 4. Motivation and Initiative | | | |
| Demonstrates preparation for clinical rotation | | | |
| Works diligently with minimal distraction | | | |
| Exhibits self-motivation and works on assignments when not busy | | | |
| Strives to improve following correction | | | |
| 5. Follows instructions and Safety | | | |
| Follows written and verbal instructions without constant repetition | | | |
| Follows universal or standard precautions and wears ALL PPE appropriately in all situations | | | |
| Ask appropriate questions | | | |
| 6. Exhibit appropriate self-confidence and independence | | | |
| Performs tasks with minimal supervision, after instruction/practice | | | |
| Recognizes limitations | | | |
| Functions and performs well under stressful situations | | | |
| | | | |

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| | | | |
| 7. Integrity | | | |
| Admits and accepts responsibility for errors | | | |
| Follows procedures without shortcuts | | | |
| Maintains information appropriately; report results honestly 100% of the time | | | |
| Follows HIPPA regulations and confidentiality standards | | | |
| Demonstrate appropriate interest in patient care | | | |
| Holds self and others accountable to best practice | | | |
| 8. Work Aptitudes | | | |
| Follows establish procedures for department | | | |
| Replenishes supplies and reagents per department procedure | | | |
| Leaves working area clean and in good order 100% of the time | | | |
| Handles unforeseen difficulties successfully | | | |
| Appreciates and values the work and function of the laboratory | | | |
| 9. Communication | | | |
| Cooperates with instructor and others | | | |
| Interacts with others in a positive manner | | | |
| Communicates effectively in all situations | | | |
| 10. Organizational Skills | | | |
| Organizes work for priority and efficiently to produce work at a reasonable rate | | | |
| Demonstrates conscientious use of supplies, does not waste supplies or materials | | | |
| TOTAL SCORE – add all columns | | | |

Comments- Student's Strengths:

Comments: - Student's Areas of Improvement:

Student Signature _____ Date: _____

Student signature does not mean that the student agrees or disagrees; only that he/she has reviewed the evaluation.

Students comments:

Evaluator Signature _____ Date _____

BridgeValley Community and Technical College

BVCTC Student Evaluation of Clinical Experience

Year _____

Facility:

- | | | |
|---|---|--|
| <input type="checkbox"/> CAMC-Memorial | <input type="checkbox"/> CAMC-General | <input type="checkbox"/> CAMC-Women’s and Children’s |
| <input type="checkbox"/> CAMC-Teays | <input type="checkbox"/> Thomas Memorial | <input type="checkbox"/> Saint Francis Hospital |
| <input type="checkbox"/> Huntington VA | <input type="checkbox"/> Montgomery Hospital | <input type="checkbox"/> Saint Mary’s Hospital |
| <input type="checkbox"/> Cabell-Huntington Hospital | <input type="checkbox"/> Pleasant Valley Hospital | <input type="checkbox"/> Summersville Regional Medical Center |

Departments:

- | | | |
|--|--|---------------------------------------|
| <input type="checkbox"/> Chemistry | <input type="checkbox"/> Hematology | <input type="checkbox"/> Microbiology |
| <input type="checkbox"/> Coagulation | <input type="checkbox"/> Virology/Immunology | <input type="checkbox"/> Urinalysis |
| <input type="checkbox"/> Blood Banking | | <input type="checkbox"/> Phlebotomy |

Instructions: Please mark the response that best describes your overall experience in the particular facility and department. Specific incidents, both good and bad, should be noted in the comments section so that the appropriate improvements may occur.

1. Clinical Instructors in this section were professional role models for the students.

Strongly Agree Agree Neither agree or disagree Disagree Strongly Disagree

2. The Laboratory personnel that I worked with were:

Very Helpful Mostly Helpful Somewhat Helpful Not Helpful at all

3. Complete this statement as it best applies to your experience. The tech(s) in charge of my rotation let me know what I should be doing:

Daily Occasionally When asked Seldom

4. Clinical Instructors in this section gave me valuable tips for organizing work and performing tests.

Strongly Agree Agree Neither agree or disagree Disagree Strongly Disagree

5. I was able to accomplish all my objectives for this section during my rotation. Why or why not?

Strongly Agree Agree Neither agree or disagree Disagree Strongly Disagree

6. My Academic courses prepared me adequately for these rotations.

Strongly Agree Agree Neither agree or disagree Disagree Strongly Disagree

7. I feel confident in my ability to work in a similar laboratory after this clinical rotation.

Strongly Agree Agree Neither agree or disagree Disagree Strongly Disagree

8. Were the laboratory personnel knowledgeable about the clinical area in which you trained?

Yes Most of them were Somewhat No

9. Were resource materials available to you as you rotated through this section?

Always Occasionally Rarely Never

10. Procedures that I was expected to perform were explained:

Thoroughly Adequately Briefly Not at All

11. How would you rate your overall clinical experience at this facility?

Excellent Good Average Poor

12. Would you want to work at this facility based on your clinical rotation experience?

Yes, definitely Probably Would not be my first choice No, would not apply for a job here

Comments: Please give a brief overview of your experience at this clinical site. Include both positive and negative experiences and be specific.

PLEDGE TO THE PROFESSION

As a clinical laboratory professional, I strive to:

Maintain and promote standards of excellence in performing and advancing the art of science of my profession;

Preserve the dignity and privacy of patients;

Uphold and maintain the dignity and respect of our profession;

Seek to establish cooperative and respectful working relationships with other health professionals; and

Contribute to the general well-being of the community.

I will actively demonstrate my commitment to these responsibilities throughout my professional life.

CODE OF ETHICS OF THE AMERICAN SOCIETY FOR CLINICAL LABORATORY SCIENCE

Preamble: The Code of Ethics of the American Society for Clinical Laboratory Science (ASCLS) sets forth the principals and standards by which clinical laboratory professionals practice their profession.

1. Duty to the Patient – Clinical laboratory professionals are accountable for the quality and integrity of the laboratory services they provide. This obligation includes maintaining individual competence in judgment and performance and striving to safeguard the patient from incompetent or illegal practice by others.

Clinical laboratory professionals maintain high standards of practice. They exercise judgment in establishing, performing and evaluating laboratory testing.

Clinical laboratory professionals maintain strict confidentiality of patient information and test results. They safeguard the dignity and privacy of patients and provide accurate information to other health care professionals about the services they provide.

2. Duty to Colleagues and the Profession – Clinical laboratory professionals uphold and maintain the dignity and respect of our profession and strive to maintain a reputation of honesty, integrity and reliability. They contribute to the advancement of the profession by improving the body of knowledge, adopting scientific advances that benefit the patient, maintaining high standards of practice and education, and seeking fair socioeconomic working conditions for members of the profession.

3. Duty to Society – As practitioners of an autonomous profession, clinical laboratory professionals have the responsibility to contribute from their sphere of professional competence to the general well-being of the community.

Clinical laboratory professionals comply with relevant laws and regulations pertaining to the practice of clinical laboratory science and actively seek, within the dictates of their consciences, to change those which do not meet the high standard of care and practice to which the profession is committed.

MLT Student Handbook Acknowledgement of Receipt and Agreement to Comply:

Bridge Valley Community and Technical College
MLT Program Student Handbook and Clinical Practicum Handbook
2018-2019

I have read, reviewed, understand, and agree to comply with the contents of the 2017-2018 MLT Student Handbook and Clinical Practicum Handbook.

Date: _____

Signature: _____

Printed Name _____

Revised 11/3/2018