THE COLORADO CENTER FOR MEDICAL LABORATORY SCIENCE

SAFETY ORIENTATION

COMPONENTS OF SAFETY ORIENTATION
- TMCA New Employee/Student Orientation
- School Safety Manual
- School MSDS
- Opportunity for Questions
- Orientation Checklist and Assignments

INFECTION CONTROL AND UNIVERSAL/STANDARD PRECAUTIONS
INFORMATION - attached

METHODS OF COMPLIANCE
- Universal/Standard Precautions
- Engineering Controls
- Work Practice Controls
- Personal Protective Equipment

WHERE DO I TRASH IT?

BLOODBORNE PATHOGENS
- Hepatitis B
  - Liver Disease
  - Healthcare Workers
  - Transmission
  - Symptoms
- Hepatitis C
  - Liver Disease
  - Transmission
  - Symptoms
- HIV
  - AIDS
  - Transmission
  - Symptoms

HANDWASHING
The Most Important Thing That Health Care Personnel Can Do To Prevent Infection
LABORATORY CHEMICALS AND FLAMMABILITY

Chemical Label: National Fire Protection Agency
- Be able to identify each component of the label by color and information it contains

Flash Point of Chemicals
- Every flammable liquid has a vapor pressure, which is a function of that liquid's temperature.
- Each flammable liquid requires a different concentration in air to sustain combustion.
- The flash point is the minimum temperature at which there is a sufficient concentration of evaporated fuel in the air for combustion to propagate after an ignition source has been introduced.

Flash Points of Some Common Chemicals
- These common chemicals present a notable fire risk – take this into account when planning work involving these chemicals.

Classification of Hazardous Chemicals
- Allergens/Sensitizers: produce skin or lung hypersensitivity
  - Chromium, nickel, dichromates, formaldehyde, phenols
- Carcinogens: promote malignant or benign growths in living tissue.
  - Asbestos, benzene, formaldehyde, inorganic arsenic, chromium and nickel compounds
- Corrosives: visibly erode or alter living tissue
  - Strong acids (nitric, hydrochloric, sulfuric and phosphoric) & strong bases (ammonia, KOH, NaOH)

Classification of Hazardous Chemicals
- Irritants: cause reversible inflammation of living tissue.
  - Ferrous ammonium sulfate, calcium oxide, sodium chloride, menthol, magnesium hydroxide
**Chemical Purity: Types of Designations**
- Highest chemical purity: Meet specifications of the American Chemical Society (ACS)
  - Designated: Reagent or analytical grade
  - Recommended for analytical use in Labs
- Impurity tolerance not injurious to health meet specifications of the US Pharmacopeia or National Formulary.
  - Designated: USP or NF grade
  - Used by pharmaceutical chemists but not pure enough for analytical work
- Less chemically pure/vary manufacturer to manufacturer without designated specifications:
  - Designated: chemically pure (CP), purified, practical, technical, commercial
  - Insufficiently pure for chemical analysis

**Classes of Fires**
- Class A fire = Ordinary combustibles
  - Wood, paper, cloth, plastics, trash
- Class B fire = Petroleum base
  - Flammable liquids, oil, gas, grease
- Class C fire = Electrical
  - Electrical
- Class D fire = Combustible metal
  - Zirconium, titanium, potassium, magnesium

**Pictures on an Extinguisher Help Identify its use...**
- Most fire extinguishers will have a pictograph label telling you which types of fire the extinguisher is designed to fight.
  - For example, a simple water extinguisher might have a label like this...

  ![Label example]

  ...which means it should only be used on Class A fires.

**Combined Fire Extinguishers**
- Dry chemical extinguishers: coat the fuel with a thin layer of dust. This separates the fuel from the oxygen in the air and stops chemical chain reactions.
  - Use on A, B & C Fires
  - Multipurpose and very effective
  - Cannot be used on Class D Fires Where a re-ignition source is present
  - Common extinguisher in hospitals
Using a Fire Extinguisher
- When confronted with a fire, use the acronym PASS to remember the correct procedure when using a fire extinguisher
  - P = PULL PIN
  - A = AIM NOZZLE AT BASE OF FIRE
  - S = SQUEEZE HANDLE
  - S = SWEEP AT BASE OF FIRE

  - The PASS Method will work on all types of extinguishers.

Controlling a Fire
- When confronted with a fire, use the acronym RACE to remember the correct procedures to follow:
  - Rescue those in immediate danger
  - Alarm others in the area by activating the nearest fire alarm
  - Confine the fire and Call security or your designated emergency contact
  - Extinguish the fire if small, or Evacuate

STUDENT DESKS, EQUIPMENT AND POD DUTIES
Student Desks

Laboratory Equipment

Safety/First Aid Equipment

Pod Duties - Procedure

SAFETY DEMONSTRATIONS

SCHOOL SAFETY ORIENTATION CHECKLIST

Date and Initial All Areas on Checklist

Sign and Date Bottom of Checklist

Turn Checklist In TODAY!!
THE COLORADO CENTER FOR MEDICAL LABORATORY SCIENCE
INFECTION CONTROL AND UNIVERSAL/STANDARD PRECAUTIONS
INFORMATION

INTRODUCTION
The Occupational Safety and Health Administration (OSHA) promulgated a final rule on December 6, 1991, for occupational exposure to blood and other potentially infectious materials. The risk of exposure from this type of material is common to all clinical laboratories, although specific tasks performed vary widely. To reduce this risk, assume that all specimens are potentially infectious and handle them in that manner.

The final standard applies to all laboratories with employees whose duties may result in exposure to body fluids, including: blood, semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, and any body fluid visibly contaminated with blood; any unfixed tissue or organ other than intact skin from a human (living or dead); and human immunodeficiency virus (HIV)-infected or HIV-containing cells, tissues or organ cultures, culture media, or other solutions; and blood, organs, or other tissues from experimental animals infected with HIV or hepatitis B virus (HBV).

KEY PROVISIONS OF THE OSHA STANDARD

Purpose: Limits occupational exposure to blood and other potentially infectious materials since any exposure could result in transmission of bloodborne pathogens that could lead to disease or death.

Scope: Covers all employees who could be “reasonably anticipated” as the result of performing their job duties to face contact with blood and other potentially infectious materials. OSHA has not attempted to list all occupations where exposures could occur. “Good Samaritan” acts such as assisting a co-worker with a nosebleed would not be considered occupational exposure.

Exposure Control Plan: Requires employers to identify, in writing, tasks and procedures as well as job classifications where occupational exposure to blood occurs-without regard to personal protective clothing and equipment. It must also set forth the schedule for implementing other provisions of the standard and specify the procedure for evaluating circumstances surrounding exposure incidents. The plan must be accessible to employees and available to OSHA. Employers must review and update it at least annually-more often if necessary to accommodate workplace changes.

Methods of Compliance: Mandates universal/standard precautions, (treating body fluids/materials as if infectious), emphasizing engineering and work practice controls. The standard stresses handwashing and requires employers to provide facilities and ensure that employees use them following exposure to blood. It sets forth procedures to minimize needle sticks, minimize splashing and spraying of blood, ensure appropriate packaging of specimens and regulated wastes and decontaminate equipment or label it as contaminated before shipping to servicing facilities.
Employers must provide, at no cost, and require employees to use appropriate personal protective equipment such as gloves, gowns, masks, mouthpieces, and resuscitation bags, and must clean, repair and replace these when necessary. Gloves are not necessarily required to routine phlebotomies in volunteer donation centers, but must be made available to employees who want them.

The standard requires a written schedule for cleaning, identifying the method of decontamination to be used, in addition to cleaning following contact with blood or other potentially infectious materials. It specifies methods for disposing of contaminated sharps and sets forth standards for containers for these items and other regulated waste. Further, the standard includes provisions for handling contaminated laundry to minimize exposures.

HIV and HBV Research Laboratories and Production Facilities: Calls for these facilities to follow standard microbiological practices and specifies additional practices intended to minimize exposures of employees working with concentrated viruses and reduce the risk of accidental exposure for other employees at the facility. These facilities must include required containment equipment and an autoclave to decontamination of regulated waste and must be constructed to limit risks and enable easy clean up. Additional training and experience requirements apply to workers in these facilities.

Hepatitis B Vaccination: Requires vaccinations to be made available to all employees who have occupational exposure to blood within 10 working days of assignment, at no cost, at a reasonable time and place, under the supervision of licensed physician/licensed healthcare professionals, and according to the latest recommendations of the U.S. Public Health Service. Prescreening may not be required as a condition of receiving the vaccine. Employees must sign a declination form if they choose not to be vaccinated, but may later opt to receive the vaccine at no cost to the employee. Should booster doses later be recommended by the USPHS, employees must be offered them.

Post-Exposure Evaluation and Follow-Up: Specifies procedures to be made available to all employees who have had an exposure incident plus any laboratory tests must be conducted by an accredited laboratory at no cost to the employee. Follow-up must include a confidential medical evaluation documenting the circumstances of exposure, identifying and testing the source individual if feasible, testing the exposed employee’s blood if he/she consents, post-exposure prophylaxis, counseling and follow-up testing.

Hazard Communication: Requires warning labels including the orange or orange-red biohazard symbol affixed to containers of regulated waste, refrigerators and freezers and other containers that are used to store or transport blood or other potentially infectious materials. Red bags or containers may be used instead of labeling. When a facility uses universal/standard precautions in its handling of all specimens, labeling is not required within the facility. Likewise, when all laundry is handled with universal/standard precautions, the laundry need not be labeled. Blood that has been tested and found to be free of HIV or HBV and released for clinical use, and regulated waste that has been decontaminated, need not be labeled. Signs must be used to identify restricted areas in HIV and HBV research laboratories and production facilities.
**Information and Training:** Mandates training within 90 days of effective date, initially upon assignment and annually—employees who have received appropriate training within the past year need only receive additional training in items not previously covered. Training must include making accessible a copy of the regulatory text of the standard and explanation of its contents, general discussion on bloodborne diseases and their transmission, exposure control plan, engineering and work practice controls, personal protective equipment, hepatitis B vaccination, response to emergencies involving blood, how to handle exposure incidents, the post-exposure evaluation and follow-up program, signs/labels/color-coding. There must be opportunity for questions and answers, and the trainer must be knowledgeable in the subject matter. Laboratory and production facility workers must receive additional, specialized initial training.

**Recordkeeping:** Calls for medical records to be kept for each employee with occupational exposure for the duration of employment plus 30 years, must be confidential and must include name and social security number; hepatitis B vaccination status (including dates); results of any examinations, medical testing and follow-up procedures; a copy of the healthcare professional’s written opinion; and a copy of information provided to the healthcare professional. Training records must be maintained for three years and must include dates, contents of the training program or a summary, trainer’s name and qualifications, names and job titles of all persons attending the sessions. Medical records must be made available to the subject employee, anyone with written consent of the employee, OSHA and NIOSH—they are not available to the employer. Disposal of records must be in accord with OSHA’s standard covering access to records.

**Dates:** Sets effective date 90 days after publication in the Federal Register. Exposure control plan must be completed within 60 days of the effective date. Information and Training requirements take effect 90 days following the effective date. The following other provisions take effect 120 days after the effective date: engineering and work practice controls, personal protective equipment, housekeeping, special provisions covering HIV and HBV research laboratories and production facilities, hepatitis B vaccination and post-exposure evaluation and follow-up, and labels and signs.
Universal (Standard) precautions shall be utilized in The Colorado Center for Medical Laboratory Science and all affiliate sites.

1. All human blood and other potentially infectious body fluids are treated in the same fashion. Blood and body fluids shall be defined as:
   a. Blood shall mean human blood, human blood components and products made from human blood
   b. Other potentially infectious materials shall mean semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, any unfixed tissue or organ (other than intact skin) from a human (living or dead), HIV containing cell or tissue/organ cultures, and HIV or HBV containing culture medium or other solutions.

2. In circumstances where it is difficult to differentiate between fluids or identify a specimen, assume that all body fluids are potentially infectious.

3. Universal (Standard) precautions do not apply to feces, nasal secretions, sputum, sweat, tears, urine and vomitus UNLESS they contain visible blood.

Engineering Controls shall be used to eliminate or minimize exposure to bloodborne pathogens. Engineering controls are reviewed for proper function and needed repairs or replacement whenever necessary and/or annually. The following engineering controls are used in The Colorado Center for Medical Laboratory Science and all affiliate sites:

1. Handwashing facilities or antiseptic towelettes shall be readily accessible. See handwashing procedure and work practice controls

2. Sharps disposal containers (closable, puncture proof, leak proof on the sides and bottom, and labeled or color coded in accordance with hazard and communication policies) shall be readily available. Needles and other sharps shall not be recapped, bent, broken or otherwise manipulated; all sharps must be disposed of in sharps containers. Sharps containers must be closed and discarded when ¾ full.

3. Desk shields shall be readily available for use when working with materials/equipment/procedures that may result in splash or spraying of potentially infectious or harmful materials.

Work Practice Controls – the following work practice controls are in effect in The Colorado Center for Medical Laboratory Science and all affiliate sites.

1. Employees/students shall wash their hands/body areas exposed to potentially infectious materials immediately, or as soon as feasible, after removal of gloves or other personal protective equipment (PPE), and/or following any contact of body areas with blood or any other potentially infectious materials. See handwashing procedure

2. Eating, drinking, smoking, applying cosmetics or lip balm, and handling contact lenses is prohibited in work/biohazard areas.
3. Food and drink shall not be kept in refrigerators, freezers, on counter tops, or in other storage areas where blood or other potentially infectious materials are present.

4. Mouth pipetting/suctioning of blood or other potentially infectious materials is strictly prohibited.

5. All procedures involving blood or other potentially infectious materials shall minimize splashing, spraying or other actions generating droplets of these materials. Uncapping of specimen tubes will occur under a protective desk shield and/or using eye/mouth protection, AND using a 4 x 4 gauze square or other barrier over the tube cap.

6. All spills/splashes must be cleaned immediately, using appropriate PPE. Broken glass must be picked up using mechanical means such as dustpans, tongs, etc. and disposed of in sharps containers. Spills of blood/infectious materials or chemicals must be isolated immediately with absorbent material and surrounding personnel notified of the spill. For clean up of chemical spills, the MSDS sheet should be consulted and appropriate procedures followed. For clean up of blood/infectious materials spills, wipe up the initial spill with paper towels, gauze, etc., spray the affected area with the approved disinfectant solution and let it stand for 10 minutes, clean up the sprayed area with paper towels. Notify a supervisor about the spill as soon as possible.

7. All work surfaces are cleaned with the approved disinfectant if visibly contaminated and at the end of each work day. The daily cleaning is documented on the “desk cleaning log”.

8. Transporting of specimens within the facility does not require secondary containers (except in the pneumatic tube system), as long as the primary specimen container is not visibly contaminated, does not leak, and is easily recognizable as a specimen container. Any specimen capable of puncturing the primary container must be placed in a puncture-proof secondary container. All specimens leaving the facility must be transported in leak proof and/or puncture proof secondary containers and labeled as “biohazard” or appropriately color coded.

9. Equipment which becomes contaminated shall be examined prior to servicing or shipping and decontaminated as necessary or feasible. An appropriate biohazard warning label shall be attached to any contaminated equipment, identifying the contaminated portions. Information regarding the contamination shall be relayed to all affected students/faculty/employees/other individuals.

10. Trash must be appropriately segregated according to department policies, i.e. Biohazard, non-biohazard, sharps, etc.

11. Accident/exposure to potentially infectious materials must be reported immediately or as soon as feasible to appropriate individuals. See student policy manual.

**Personal Protective Equipment (PPE)** – PPE is provided to protect individuals against exposure to bloodborne pathogens and other potentially harmful materials. This equipment includes, but is not limited to, lab coats, gloves, masks, face shields, and safety glasses. PPE is appropriate if it does not permit blood or other potentially infectious material to pass through or to reach the individual's clothing, skin, eyes, mouth or other mucous membranes under normal conditions of use and for the duration of time which the PPE is used. The Colorado Center for Medical Laboratory Science and affiliate sites provide PPE to faculty/students and they are trained in its proper use,
accessibility, cleaning, repair and replacement. Individuals shall use PPE whenever the risk of contacting potentially infectious or harmful materials is present. Any deviation from this policy must be reported to a supervisor and the reasons for deviation documented.

1. All PPE shall be inspected periodically and repaired/replace as needed to maintain effectiveness.
2. Reusable lab coats shall be cleaned, laundered, and decontaminated as needed by The Colorado Center for Medical Laboratory Science and all affiliate sites.
3. Any garments penetrated by blood or other potentially infectious materials shall be removed immediately, or as soon as feasible.
4. Lab coats, buttoned completely, must be worn when working with potentially infectious/harmful materials. Lab coats may be worn in the hallways when traveling from one area to another as part of job/school duties. Lab coats may not be worn in non-biohazard areas, lounges, cafeteria, gift shop, and other public areas.
5. Gloves must be worn when performing phlebotomy, when working with potentially infectious/harmful materials, and when it is reasonable to anticipate that one may come in contact with blood or other harmful materials. Gloves must be changed and hands washed between each patient contact and as appropriate between laboratory procedures. Removal of gloves should be done aseptically. Gloves must not be reused after removal from one’s hands and should be worn over the cuffs of the lab coat. Gloves shall be replaced as soon as practical when they become visibly contaminated, torn, punctured, or when their ability to function as a barrier is compromised. Disposable gloves shall not be washed or decontaminated for reuse.
6. Care must be taken when wearing gloves not to contaminate otherwise non-contaminated surfaces. This includes your face, eyes, Kleenex boxes, paper towel dispensers, faucets, telephones, doorknobs, etc.
7. Non-disposable, utility gloves are decontaminated for reuse unless they are cracked, peeling, torn, or show other signs of deterioration, at which time they shall be disposed of.
8. Eye/full face protection shall be worn whenever splashes, spray, spatter or droplets of blood or other potentially infectious materials may be generated and eye, nose or mouth contamination can be reasonably anticipated.
### WHERE DO I TRASH IT?

<table>
<thead>
<tr>
<th>REGULAR TRASH</th>
<th>BIOHAZARD TRASH</th>
<th>SHARPS CONTAINERS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black/Brown/Beige Bags</td>
<td>Biohazard liners/Red/Orange Bags</td>
<td>Red/Pink Puncture Proof Containers</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Non-Contaminated, Non Sharps:</strong></th>
<th><strong>Contaminated with Blood or Other Potentially Infectious Material</strong></th>
<th><strong>Sharps – anything than could pierce a trash bag</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ask Yourself:</strong></td>
<td><strong>Ask Yourself:</strong></td>
<td><strong>Ask Yourself:</strong></td>
</tr>
<tr>
<td>Is this visibly contaminated with blood or other body fluids (other than urine)?</td>
<td>Is this visibly contaminated with blood or other body fluids?</td>
<td>Is this something that could pierce a trash bag (intact or broken)?</td>
</tr>
<tr>
<td>If the answer is no, it goes in the regular trash.</td>
<td>If the answer is yes, it goes in biohazard trash.</td>
<td>If the answer is yes, it goes in a sharps container.</td>
</tr>
</tbody>
</table>

**IF THERE IS A QUESTION ABOUT WHERE TO DISPOSE OF SOMETHING, CONTACT YOUR SUPERVISOR.**
HEPATITIS B – is a liver disease, which results in possible inflammation of the liver. It can also lead to more serious conditions, including cirrhosis and liver cancer. In the United States, there are approximately 300,000 new cases of Hepatitis B Virus (HBV) every year.

Healthcare workers are **20 times more likely** to contract Hepatitis B than the general population. It is estimated that there are as many as 18,000 new cases of HBV every year among healthcare workers, resulting in 200-300 deaths. While there is no cure for Hepatitis B, a vaccine does exist that can prevent infection.

In healthcare settings, HBV is most often transmitted through breaks in the skin or mucous membranes. This usually occurs through needle sticks, human bites, or having infectious material (such as blood or other body fluids) get into existing cuts or abrasions.

The symptoms of HBV infection can at first be fatigue, stomach pain, loss of appetite and nausea. As the disease continues to develop, a yellowing of the skin or jaundice, and darkened urine will often occur. However, more than 50% of the time, people who are infected with HBV will have no symptoms for quite some time. After exposure, it can take 2-6 months for Hepatitis B to develop.

HEPATITIS C – is also an infection of the liver. It used to be called “non A, non B hepatitis”. 60-90% of individuals who get Hepatitis C Virus (HCV) are IV drug abusers or have received multiple blood transfusions. Healthcare workers are at risk of contracting HCV when they are exposed to blood and body fluids of infected persons. There is no vaccine available for HCV.

HUMAN IMMUNODEFICIENCY VIRUS (HIV) – is the virus that causes AIDS or Acquired Immune Deficiency Syndrome. It is most often spread by sexual intercourse, blood exposure and by using “dirty” needles (IV drug abusers). As a healthcare worker, you are probably at **slightly** higher risk of contracting HIV than the general population. This could occur through needle sticks or having infectious material (blood or other body fluids) get into existing cuts or abrasions.

Individuals can be infected with HIV and have few or no symptoms for quite some time. Common symptoms include night sweats and unexplained weight loss. When AIDS-defining illnesses such as Pneumocystis carinii pneumonia or Kaposi’s sarcoma are seen, there is breakdown of the immune system and the body is not able to fight off disease. There is no HIV vaccine and no known cure.
It is the policy of The Colorado Center for Medical Laboratory Science that handwashing facilities will be readily available to all employees and students. Employees and students must wash their hands with soap and water before and after contact with any patient. Hands must be washed with soap and water after having contact with blood, body fluids, mucous membranes, non-intact skin, after handling items soiled with blood or body fluids, and after performing procedures even though gloves have been utilized. Hands and other skin surfaces should be washed immediately if inadvertently contaminated with blood or body fluids. Hands should be washed with soap and water following removal of gloves and before leaving the laboratory area.

PROCEDURE:

1. Hands should be thoroughly wet under a moderate sized stream of water at a comfortable temperature.
2. Hands should be vigorously lathered with soap and rubbed together for a minimum of 10 seconds before rinsing under running water.
3. Care should be taken to include the area between fingers, under fingernails, palms, top of hands, and wrists, using a continuous friction motion.
4. Hands should be rinsed thoroughly. Rinsing with cool water decreases drying and chapping of skin. Dry hands with a paper towel, using the towel to turn off the faucet.
5. Rings, other than plain bands, are discouraged for patient care personnel. Rings should be left in place while washing.
6. Use of nail polish is discouraged and artificial nails are prohibited.
7. Use of hand lotion after washing is recommended to avoid drying of skin.

NOTE:
If necessary, Non-water cleansers are available.
It is each student’s responsibility to keep their desk area clean, neat and stocked on a daily basis. This includes, but is not limited to, changing the desk mat if it is soiled, emptying the biohazard container when it is full, disinfecting the desk area daily, putting all appropriate equipment away when work is complete, and pushing the chairs under the counter at the end of the day.

It is each student’s responsibility to take good care of the equipment with which they are entrusted. Laboratory equipment is very delicate and expensive, and if any items are not well-maintained or significantly damaged, the student will be required to repair/replace them (see student policy manual). Students are expected to notify an instructor immediately should any equipment damage, loss, etc. occur.

Some laboratory equipment is stored in a central location and will be provided to students as needed. These items should be returned to the storage location at the end of the laboratory session, or as directed by an instructor.

Some laboratory equipment is stored in, and is intended for use, in each lab “pod”. These items should be returned to the “pod” storage area at the end of the laboratory session.

Safety and first aid equipment is located in a central area of the student laboratory and should be returned to that area after use.

In addition to being responsible for maintaining an orderly work area, students are required to participate with their classmates in maintaining equipment and areas of the classroom that are shared, along with performing and documenting a variety of quality assurance activities. Review the following “Pod Duties Procedures”. Pod Duties lists detail these activities and divide them among the class. Students will rotate the responsibility of serving as “student representative”, which includes daily review of pod duty lists to assure completion of tasks.
THE COLORADO CENTER FOR MEDICAL LABORATORY SCIENCE
POD DUTIES PROCEDURES

Routine maintenance and quality assurance activities are an important aspect of clinical laboratory operation. During the academic terms, students are expected to participate in these activities (pod duties) on a daily basis as scheduled, and document their completion.

There are two Pod Duty Lists and each side of the student laboratory (north and south) is responsible for one list each day of the student laboratory terms. Additionally, each week two students are designated the “student representatives” and are responsible for verifying that ALL pod duties have been done and documented every day. See schedule posted in student laboratory.

Pod Duties Include:

**Temperatures**
There are multiple refrigerators/freezers/incubators in the department. The refrigerator and freezer temperatures must be checked daily and documented on the log on the refrigerator door. The incubator temperatures must be checked daily during their use in applicable terms. If any of the temperatures are outside the ranges posted on the log sheets, DO NOT ADJUST THE TEMPERATURE CONTROL – Notify an instructor immediately by pulling the orange sheet off of the refrigerator and placing it in the lab assignment box (NOT in the folder) of the instructor who is teaching that day.

**Equipment Cleaning**
Activities in this category include, but are not limited to, washing laboratory glassware and pipettes (instructions are provided during the clinical lab skills course and posted near the sinks), drying and putting away washed glassware, cleaning the slide stainer (instructions provided during the hematology course and posted near slide stainer), cleaning cytocentrifuge equipment (instructions provided during body fluids course), cleaning multi-headed microscopes (procedure is the same as cleaning individual microscopes), cleaning computer terminals and keyboards (instructions provided during clinical lab skills course), turning the power off of all equipment in the pod area (except spectrophotometers), logging off of the pod area computer.

**Safety Equipment Maintenance**
The function of the eyewash and shower must be checked weekly and documented on the pod duty log (instructions are provided during safety orientation). If function of either of these pieces of equipment is not adequate, notify an instructor immediately.

Fire extinguisher maintenance is done by a licensed contractor. Students are responsible for checking for adequate charge and documenting on fire extinguisher tag and on pod duty list.

Replenishing/replacing disinfectant cleaning solution as necessary. Instructions are provided during safety orientation. Disinfectant solution is obtained from an instructor and bottles should be filled as directed to about 2/3 full.

**General Cleaning**
These activities are designed to keep our learning environment clean and tidy. They include, but are not limited to, cleaning the student lounge; cleaning the classroom tables and dry erase board; cleaning the tops of refrigerators, instructor’s table and other “common areas” of the classroom and lab; emptying the waste receptacles of hole punches; replacing the lab coat laundry bag when necessary; cleaning gram stain sinks with abrasive cleaner during the spring term; cleaning the handwashing sink and surrounding area, cleaning, organizing and restocking student desk areas, etc.

**Trash and Sharps Disposal**
Consolidation of biohazard trash containers for disposal by licensed contractor; inspect sharps containers daily for fill level and inform instructor when they are > 2/3 full.

**Other**
Replenishing paper supply in the laser printer in the student laboratory, refilling the distilled water containers, other duties as assigned.
SAFETY ORIENTATION
TOUR AND DEMONSTRATIONS

1. Barrier – Biohazard vs. Non-biohazard
2. Handwashing Sink
   a. demo washing, towel shut off, cleaning of area, lotion
3. Safety Manual and MSDS
4. Personal Protective Equipment (PPE)
   a. lab coats
      1. closet, buttoned, laundry, biohazard areas only, hooks in lab
   b. gloves
      1. location, removal, trash, biohazard areas only, liners, latex
   c. safety glasses
      1. required, characteristics, biohazard areas only, face shields
5. Engineering/Work Practice Controls
   a. Sharps Containers
      1. large containers
      2. desktop containers
   b. Biohazard Trash – floor and desktop containers
   c. Regular Trash
   d. Desk Shields
      1. gauze over top of tubes
   e. Desk Mats
   f. Disinfectant
      1. refilling containers
      2. desk cleaning logs
   g. Eyewash-operation and log
   h. Fire Blanket, Extinguisher and Alarms
   i. Shower – operation and log
   j. Exit Routes
   k. Spill Cleanup
      1. Glass
      2. Biohazard
      3. Chemical
   l. First Aid Supplies
6. Other locations
   a. Glassware & glassware washing area
   b. Chemicals
   c. Pod Duty Lists/Schedule
   d. Refrigerators/Freezers
   e. Other forms
   f. Time clock and access codes
   g. Assignment Folders & Supply Requests
   h. Flammable Cabinets
   i. Hoods
   j. Laundry Bag
   k. Lab Coat Hooks
   l. Student Lounge
   m. Restrooms
THE COLORADO CENTER FOR MEDICAL LABORATORY SCIENCE
STUDENT ORIENTATION – SAFETY, HIPAA, BLOODBORNE PATHOGENS
CHECKLIST

Name:_________________________________________ Date:_________________

Directions: Complete orientation activities as required, documenting them on this form. Hand in this form at the end of the School/Safety Orientation Session. Additionally, complete the Student Orientation Assignments as directed.

<table>
<thead>
<tr>
<th>Activity</th>
<th>Date</th>
<th>Initials</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attendance at the TMCA Orientation Session</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attendance at School Orientation Session, including discussions, demonstrations and activities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Locate the following in the classroom, student laboratory, student lounge and hallway/lobby areas outside of the school:

1. Fire extinguishers 6. Eyewash
2. Fire pull alarms 7. Fire Blanket
4. School MSDS 9. Handwashing area
5. Safety Shower 10. Evacuation Route Map

Read and sign the following statements:

1. I understand all School Policy Manual, Safety Manual and Orientation and Safety information/procedures. I understand that it is my responsibility to strictly adhere to these procedures at all times.

   ___________________________________________  ________________________
   Signature                                           Date

2. I have been shown the location of personal protective equipment and understand its proper use when working with potentially infectious materials. I understand that proper use of the equipment is my responsibility.

   ___________________________________________  ________________________
   Signature                                           Date

3. I understand the inherent risks that exist when working in a healthcare environment (exposure to bloodborne pathogens, chemicals, etc.) and understand that strictly following procedures that may minimize this risk is my responsibility. I understand that, should I become injured or have an exposure during student laboratory classes/labs, treatment is my responsibility. I understand that, should I become injured or have an exposure during clinical rotations, treatment will be covered by MSU Denver Workers' Compensation Policy.

   ___________________________________________  ________________________
   Signature                                           Date

4. I understand the components of the Health Insurance Portability and Accountability Act of 1996 (HIPAA), including patient rights, the law, and methods to protect confidential information. I understand my responsibility in strictly adhering to HIPPA.

   ___________________________________________  ________________________
   Signature                                           Date

   CCMLS Faculty Signature  ________________________
INSTRUCTIONS: From 2:00-2:45, complete the following:

1. **Safety Manual and MSDS Location**
   a. Locate the school Safety Manual and MSDS (bookcase in student lab). Complete a cursory review of these manuals and sign the log.

2. **Student Orientation Checklist**
   b. Complete the Orientation Checklist and turn in.
   c. You will be provided with a copy of the checklist and you must upload this file to Certified Background Check

3. **Desk Checkout**
   a. Locate your student lab desk from the seating chart posted in the student laboratory
   b. Go to your desk and complete the checkout of materials; hand in the checkout sheet

**HOMEWORK:** Complete the Student Orientation Assignments (file on website). Take home a 100 question scantron to complete the Orientation Quiz.