

# MEDICAL TECHNICIAN STUDENT HANDBOOK INDEX

- WELCOME TO THE TMCC MEDICAL LABORATORY PROGRAM
- MISSION STATEMENT/PROGRAM GOALS
- DESCRIPTION OF THE PROFESSION
- CODE OF ETHICS
- TMCC ADMISSION POLICIES
- MEDICAL TECHNICIAN STUDENT SELECTION
- APPLICATION FORM
- MLT STUDENT SIGNATURE PAGE
- MLT CURRICULUM GUIDE
- COURSE DESCRIPTIONS
- ESSENTIAL FUNCTIONS
- CLINICAL ROTATION SITES
- HEALTH AND SAFETY
- LABORATORY SAFETY MANUAL
- GENERAL INFORMATION

# WELCOME TO THE TURTLE MOUNTAIN COMMUNITY COLLEGE MEDICAL LABORATORY TECHNICIAN PROGRAM

Welcome to the Medical Laboratory Technician Program at Turtle Mountain Community College (TMCC) The Medical Laboratory Technician Program offers a two year Associate of Applied Science Degree. The faculty and staff wish you success in the pursuit of you educational goals. We are glad to have you and will treat you with courtesy and respect. The student is our only product and consequently, our most important product. Therefore, we are here to assist you in gaining an education both within the classroom and in clinical activities scheduled for application of knowledge gained from the classroom.

The Turtle Mountain Community College is accredited by the Higher Learning Commission of the North Central Association of Colleges and Schools (NCA) 230 South LaSalle Street, Suite 7-500 Chicago, Il 60604. The Clinical Laboratory Technician Program at TMCC holds an Active Status by the National Accrediting Agency for Clinical laboratory Sciences (<http://www.naacls.org>) 5600 N. River Rd., Suite 720, Rosemont, Illinois 60018: (733) 714-8880. Approval by NAACLS assures students that they will be provided with a quality education in Laboratory Science. Upon successful completion of the Medical Laboratory Technician Program the graduate is eligible to take a national board of certification exam. Graduation from the program is not contingent upon passing an external certification exam.

The purpose of this handbook is to detail policies and procedures specific to the Medical Technician Program. It is constructed to be used as a supplement to the Turtle Mountain

Community College catalog and student handbook. The policies and procedures set forth in this handbook are designed to support the success of the student.

A copy of the Turtle Mountain Community College catalog and student handbook is available at the Campus's Student Services offices or may be downloaded from the TMCC web site at <http://www.tm.edu>

For more information concerning the Turtle Mountain Community College Medical Technician Program you may contact the following Individuals:

1. Mr. Wayne Olson Program Director (701) 477- 7862 Ext.2905  
[wcolson@tm.edu](mailto:wcolson@tm.edu)
2. Ms. Marilyn Delorme Clinical Laboratory Instructor (701) 477- 7862 Ext. 2904  
[mdelorme@tm.edu](mailto:mdelorme@tm.edu)

# MISSION STATEMENT

The Turtle Mountain Community College (TMCC) Medical Laboratory Technician Program is committed to providing an educational program consistent with the standards outlined by the National Accrediting Agency for Laboratory Science(s) NAACLS. Which is located at 5600 N. River, Suite 720 Rosemont, IL 60018-5119. The purpose of the TMCC Medical technician program is to train students as competent Medical laboratory Technicians.

## PROGRAM GOALS

1. Provide a professional learning environment for students.
2. Provide a curriculum that will give students the skills necessary to demonstrate entry level proficiency in all areas of Laboratory Science.
3. Provide the number of credits to fulfill transferability to a four year Laboratory program.
4. Provide the student with the opportunity for personal as well as professional growth.
5. Provide examples following the Seven Teachings enabling students to learn respect for others, themselves and the medical community.

# DESCRIPTION OF THE PROFESSION

The health of all Americans depends upon the educated minds and trained hands of the Medical Laboratory Professional. The practice of modern medicine at the exacting standards currently required would be impossible without the scientific testing performed daily in the medical laboratory. Maintenance of these standards and progress toward improvement in the quality of laboratory services depends on the dedicated efforts of professional Practitioners of medical laboratory science.

Medical Laboratory Technicians are proficient in:

- Collection, handling, preparation, and storage of biological specimens for laboratory analysis;
- Performance of technical analyses on body fluids, cells, products, and organisms;
- Recognition of factors that affect procedures and results and take appropriate action within predetermined limits;
- Ability to operate basic laboratory instrumentation;
- Performance of quality control measures on instrumentation and technical analyses;
- Recognition of and adherence to clinical laboratory safety policies;
- Ability to troubleshoot instrumentation and technical analyses;
- Ability to perform preventative and corrective maintenance on basic laboratory equipment and instrumentation;
- Ability to recognize when to refer instrumentation problems to the appropriate sources;
- Demonstration of professional conduct with patients and health care workers both within and outside the laboratory;

- Demonstration of effective interpersonal communication skills;
- Demonstration of knowledge of the relationship of laboratory findings with common diseases processes;
- Demonstration of knowledge of reporting patient results using a laboratory computer information system;
- Recognition of the need for continuing education in professional practice and action on that recognition.

# CODE OF ETHICS

- The students enrolled in the Medical Technician Program will apply the seven teachings of the Anishinabe as their “code of ethics.”

## THE SEVEN TEACHINGS

### WISDOM

- The Medical Technician Student through an educational program will gain the “Wisdom” needed to be a medical professional and become an important part of the Medical Laboratory Team.

### LOVE

- The Medical Technician Student will be taught a “Love” for their profession and through that love will perform work that is ethical, of high quality and above all with compassion.

### RESPECT

- The Medical Technician Student will be taught the importance of respecting ones leaders and co-workers of whatever medical team they are a part of they will learn to “Respect” and protect the dignity and requests of the sick

### BRAVERY

- The Medical Technician Student will be taught the tools needed to have the Bravery to take that initial step to encounter their first patient with confidence.

### HONESTY

- The Medical Technician Student will be taught the importance of Honesty in following
- performance procedures correctly and how, by not doing so could effect a
- patient’s results and ultimately their diagnosis and treatment.

### HUMILITY

- The Medical Technician Student will be taught the Humility of acknowledging making
- a mistake and not to try and cover it but correct and learn from it.

### TRUTH

- The Medical Technician Student will learn the Truth about their patients conditions and will be taught to hold those truths in strict confidence as if they were their

# TMCC ADMISSION POLICIES

The standard admission policies are printed in the college catalog. (Pages 19-20)

The current admission policies for the Turtle Mountain Community College Medical technician Program have been revised since the current catalog was published. The new policies are printed in the local newspapers, posted in The Allied Health building and in the student union. They are also being posted to the new web site.

## Turtle Mountain Community College Admissions Policies Admission and General Information

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### Student Responsibility for Satisfying Requirements

Each student has complete responsibility for complying with the instructions and regulations set forth in the catalog, for selecting courses that will satisfy his/her educational objectives, and for satisfying course prerequisites. Student Services Staff and Advisors are always available and willing to assist students. The college does not assume responsibility for student misinterpretation of policies and procedures presented in the catalog. Any question concerning the content of TMCC's Catalog should be referred to the Dean of Academic Programs and/or Dean of Student Services.

### Admissions

All correspondence regarding admission to the college should be addressed to the Admission Officer. Each student is urged to make application for fall/spring semester admission as early as possible.

If a student is denied admission to the college, he/she may appeal to the Admission and Financial Aid Committee for a case review. Any questions concerning appeal procedures should be addressed to the Admissions Officer.

### Selective Admission Policy

Turtle Mountain Community College has an open-admission policy for most of its programs. However, the college does reserve the right to institute a selective admission policy in programs of study where limitations are necessary; such as in the Allied Health Programs where student numbers may be limited by Certifying Agencies.



### General Admission Requirements-New Students/Students Seeking Readmission

An applicant who wishes to be considered for admission must have the following documents on file:

- A complete application for admission.
- An official transcript from an accredited or approved high school with the date of graduation, or the official transcript of the General Education Development (GED) examination
- Transfer students must provide an official transcript of all previous college work
- A Certificate of Degree of Indian Blood from a federally recognized tribe, if applicable

The student will be required to complete the above admissions requirements before registering. If any of the requirements are not satisfied, a letter will be sent to the student. It is the responsibility of the student to ensure all documents are received before registering for classes. Students who have completed all admission requirements will receive a letter of acceptance. The letter will contain information on orientation, registration and first day of classes.

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### Financial Aid

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The Turtle Mountain Community College Financial Aid Office, utilizing one or more of the student aid programs described in this section, will make every effort to provide adequate financial assistance to the student that demonstrates legitimate financial need. Priority consideration deadlines are as early as March 15 for some programs. Applications received after May 1, will be considered on a funds-available basis. The Financial Aid Director will make an effort to satisfy the student's unmet need to the maximum, if possible, from available sources. The student is free to accept or decline any aid that is offered.

Financial aid is awarded for one academic year. A student must complete a new FAFSA application each year. A student who wishes to apply for financial aid should contact the Financial Aid office for information and application forms.

## Policy and Procedure for Registration/and Academic Record Information

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Registration dates for each term are shown in the academic calendar at the front of this catalog, posted on the college website, listed in the student handbook and posted at various locations around campus.

Registration is conducted each semester. See the academic calendar at the front of this catalog for dates. Faculty is available to advise students during the fall/spring registrations. Starting one to two weeks before registration, prospective students are informed by mail and media about the date, time, and place of registration.

Orientation is an organized informational seminar and an important part of the registration process. Orientation is a requirement for all students. At the session, staff and peer mentors present an overview of information for all freshmen and transfer students who intend to enroll for the semester. See the academic calendar at the front of this catalog for the date.

Pre-registration is conducted for one week in the fall semester for currently enrolled students seeking enrollment for the next term. See academic calendar for dates.

All new students are required to take placement tests in the following areas: English, math and science. Students who lack basic skills based upon these results of these tests will be required to register in appropriate courses. Students will have a one-time opportunity to challenge the test results. See Academic calendar for dates.

Registration forms are available in Student Services. All students will be required to pay a registration fee of \$25.00, regardless of how many credits the student registers for in that semester. This fee will be assessed each semester.

# MEDICAL LAB TECHNICIAN STUDENT SELECTION

Students applying for the CLT/MLT Program must follow the General Admission Policies outlined in the TMCC Catalog. Upon acceptance to the Institution, a student may apply for the Clinical/Medical Lab Technician Program. Applications can be obtained from the CLT/MLT Program Director. Note: Applications that are not received or postmarked by the deadline of June 15<sup>th</sup> of each year will not be considered in the initial admissions process into the CLT/MLT program.

Applicants for the program must have:

- A letter of acceptance to the Institution from the TMCC Admissions Officer
- Complete TMCC Clinical/Medical Lab Technician Program Application
- A minimum of one year of high school biology and chemistry or their applicable equivalents within the last 10 years with a grade of “C” or better.
- Applicants must demonstrate readiness for English 110 and Math 111 as determined by the College’s placement tests or by documentation of successful completion of identified developmental course work.
- TB tests and immunizations must be on file prior to beginning any Clinical Laboratory Technician classes. Health problems which would interfere with the applicant’s ability to meet program objectives will be addressed on an individual basis.
- Applicants must obtain a Criminal Record Check and a Child Abuse Clearance.

Once a potential student meets the entrance requirements, the CLT/MLT Program Director will schedule an interview. During the interview process the student will be advised that participation in CLT/MLT Program requires:

- Interest in Science and Math Classes.
- Good communication skills
- Strong organizational skills
- Desire to work with people
- Maintaining a minimum 2.50 GPA in all CLT/MLT Program Curriculum Courses
- Obtaining a background checks as well as drug screens prior to entering a Clinical Rotation
- Compliance with HIPPA Regulations
- Completion of CLS 103 Phlebotomy with a grade of “C” or before entering into a Clinical Rotation

- Completion of all General Education classes before entering into a Clinical Rotation
- Review of essential functions for CLT/MLT Program
- TMCC will select 12 students, based upon space, into the CLT/MLT Program. Student selection is determined by favorable review of the application and interview process, along with the applicant ability to meet the specific requirements of the program. Applicants will be notified by mail by August 1 of each year regarding the status of their application. Applications of those who are not admitted *will not be carried over* to the following year. Applicants must reapply to the CLT/MLT Program by the next application deadline. Applicants must comply with the admission requirements for the current program year. It is the responsibility of the applicant to be aware of any change in criteria. Current admissions information can be obtained from the CLT/MLT Program Director.
- Please be informed that a Criminal Background check is required prior to entering any CLT/MLT internship. In the event the student background check reveals any disqualifying factors that student will not be permitted to continue with the internship portion of the program (note: successful completion of all CLT/MLT internships is a graduation requirement). Information on how to acquire / perform the background check will be provided to all students accepted to the CLT/MLT program. Students will be required to submit a signed Student Verification and HIPPA Disclosure Form.
- Students are required to maintain a 2.0 average in both academic and clinical aspects of the program at all times to progress in the program.

**TURTLE MOUNTAIN COMMUNITY COLLEGE  
CLINICAL/MEDICAL LAB TECHNICIAN  
(CLT/MLT) PROGRAM**

CLT/MLT students are candidates selected for admission into CLT/MLT program of study; after meeting the Standard admission requirements of TMCC.

Please type or print neatly in blue or black ink

Last Name Name(s)		First Name	Middle Initial	Previous Last
Male	Female	Email address		

Social Security Number	Date of Birth (mm/dd/yyyy)
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Current mailing address number and street	City	State	Zip
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Physical address if different from mailing address	City	State	Zip
----------------------------------------------------	------	-------	-----

Daytime phone	Evening phone	Message	Cell phone
High school diploma or college degree earned: Yes      No		GED earned: Yes      No	

Education Information

List all colleges where you have completed CLT/MLT prerequisites and/or a degree

College	State	Dates of Attendance	Degree earned/number of credits

I have read and understand the admission criteria for the CLT/MLT program at Turtle Mountain Community College. I understand that it is my responsibility to meet all program and application criteria. I verify that all statements on this application are complete and true and I understand that falsification of any information may lead to disqualification or dismissal from the program.

Signature

# MLT STUDENT SIGNATURE PAGE

## STUDENT AGREEMENT

I have received the 2013-2014 TMCC College Catalog and MLT Student Handbook. I agree to read the handbook and affirm that I will be responsible for all the data therein. I understand and am aware of the contents listed below, as indicated by my initials.

\_\_\_\_\_ Please initial each item:

\_\_\_\_\_ Program Accreditation

\_\_\_\_\_ Program information

\_\_\_\_\_ Essential Functions

\_\_\_\_\_ Graduation requirements

\_\_\_\_\_ Academic Standards

\_\_\_\_\_ Curriculum and course sequence

\_\_\_\_\_ Clinical Placement Policy

\_\_\_\_\_ Progression through the Program

\_\_\_\_\_ Student Health requirements

\_\_\_\_\_ Practicum hours

\_\_\_\_\_ I give the TMCC permission to use pictures taken during my enrollment in the Lab program for recruitment purposes (optional)

I agree to abide by all the rules, policies, and procedures of the program

Print Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

TURTLE MOUNTAIN COMMUNITY COLLEGE  
MLT Curriculum Guide 08/21/2014

Freshman Fall Semester		Credit	Prerequisite
CLS 103	Phlebotomy	3	
CHEM 115	Intro to Chemistry	4	
MATH 111	College Algebra I	3	
CLS 113	Urinalysis and Body Fluids	2	
CLS 225	Clinical Hematology and Coagulation	3	
CLS 201	Clinical Immunology	3	
Total Credits		18	

Spring Semester			
BIOL 115	Human Structure and Function (or BIOL 220 Anatomy and Physiology...4)	4	
CLS 245	Clinical Microbiology	3	
CLS 115	Clinical Parasitology	1	
BIOL 150	General Biology I	4	
ENGL 110	Composition I	3	
HPER 210	First Aid/CPR	2	
Total Credits		17	

Summer		Credit	Prerequisite
CLS 215	Clinical Internship I	6	
Total Credits		6	

Sophomore Fall Semester		Credit	Prerequisite
CHEM 116	Introduction to Organic/Bio Chemistry	4	CHEM 115 or 121
BIOL 202	Microbiology	4	
CLS 240	Clinical Immunohematology	4	
HIST 251	Chippewa or Indian History	3	
CLS 235	Clinical Chemistry	3	
Total Credits		18	
Spring Semester			
CLS 255	Clinical Internship II	12	
CLS 106	Clinical Seminar	1	
Total Credits		13	

Electives			
	May include Medical Terminology, Introduction to Computers, Introduction to Psychology or other AAS electives.	5	
Total Program Credits		75	

# COURSE DESCRIPTIONS

## List of course Descriptions

### CLS 103 Phlebotomy/Introduction to MLT

4 Credits                      Pre-requisite: Enrollment in a Health Career Education Program

This course provides instruction in the skills needed for the proper collection and handling of blood and other specimens used for diagnostic purposes. Emphasis is placed on ethics, legalities, safety, universal precautions, national patient safety goals, health care delivery systems, patient relations and communication. Additionally students will understand the pre-analytical variables that affect laboratory specimens and how to work successfully as part of the extended laboratory team. Upon completion, students will have gained educational instruction to be able to demonstrate competency in all areas of theoretical comprehension and techniques of phlebotomy.

### CLS 106 Clinical Seminar

1 Credits                      Pre-requisite: CLS 103 Co-Requisite CLS 255

This course provides the student the opportunity to review with Faculty specific learning objectives/competencies, clinical rotation evaluations and provides the student with tools to use in preparation and review for the National and State Certification exams. While enrolled in this class students will be required to participate in Service Learning Activities in which they will use their skills learned in their field of study to benefit the community.

### CLS 113 Urinalysis and Body Fluids

2 Credits                      Pre-requisite: CLS 103

Theory, techniques and practice of urinalysis with emphasis on identification of elements in sediment. Analysis of various body fluids, examination of slides, chemistry of spinal fluids, semen, plural and synovial fluids.

### CLS 205 Clinical Parasitology

1 Credits                      Pre-requisite:

The study of parasites and their relationship to the human host.

### CLS 201 Immunology

3 Credits                      Pre-requisite:

The foundations of diagnostic serology, immunohematology, histocompatibility and hematology as well as new technology such as monoclonal antibodies and molecular biology are covered in order for students to become better prepared for a career in laboratory medicine.

### CLS 215 Practicum I



6 Credits                      Pre-requisite:

This practicum will be presented in the Clinical Laboratory of the Allied Health Complex. The instrumentation that will be used by the students with supervision include the Abbott Ruby Hematology analyzer, Piccolo chemistry analyzer, Qualigen, Triage meter, Clinitek Status urinalysis analyzer, CoaguChek XS coagulation analyzer and manual procedures for microbiology.

CLS 225 Hematology/Coagulation

3 Credits                      Pre-requisite: CLS 103

Identification of normal and abnormal blood cells in various hematological disorders. Theory and application of hematology procedures. Theory and mechanisms of hemostasis.

CLS 235 Clinical Chemistry

3 Credits                      Pre-requisite:

Principles of instrumentation and the theory and application of the biochemical tests performed in the clinical laboratory. The student will receive instruction in the basic techniques required for performing routine manual determinations.

CLS 240 Immunohematology

4 Credits                      Pre-requisite:

Lecture and laboratory. Fundamental principle of immunology are presented and applied to serology and blood banking. Donor selection, blood collection and processing, blood components and compatibility testing. Preparation and administration of blood and genetics of blood inheritance.

CLS 245 Clinical Microbiology

3 Credits                      Pre-requisite:

The morphology, culture characteristics and identification of bacteria pathogenic to man and their role in infectious disease are discussed, as well as antibiotics susceptibility testing and rapid identification systems.

CLS 255 Clinical Rotation

12 Credits                      Pre-requisite: Must have completed all General Education and Program Core classes with a GPA of 2.5 or better.

Supervised experience in the hematology, chemistry, microbiology, urinalysis, phlebotomy and blood banking departments of the affiliated clinical laboratory.

# ESSENTIAL FUNCTIONS

The following core essential functions are provided to assist each student in determining whether he or she can perform in a Medical Technician Program. Each of these essentials is reflected in course objectives and provides an objective measure for students and advisors to make informed decisions regarding whether a student is qualified to meet the requirements of the program.

If a student believes that he or she cannot meet one or more of the essentials without accommodations or modifications, the Medical Technician Program Director will determine, on an individual basis along with the Student Services Representative whether or not the necessary accommodation or modification can be made reasonable. Students can also be referred to the Vocational Rehab Program for additional assistance.

1. Critical thinking ability sufficient for clinical judgment.
2. Interpersonal abilities sufficient to interact with individuals, families and groups from a variety of social, emotional, cultural, and intellectual backgrounds
3. Communication abilities sufficient for interaction with others in verbal and written form
4. Physical abilities sufficient to move from room to room and maneuver in small spaces
5. Gross and fine motor abilities sufficient to provide safe and effective care for patients
6. Auditory abilities sufficient to monitor and assess health needs.
7. Visual ability sufficient for observation and assessment necessary in a Phlebotomy Program. Phlebotomy students must be able to distinguish colors
8. Must be able to stand and bend for extended time.

# CLINICAL ROTATION SITES

The Medical Laboratory Technician students are required to take the Course CLS 255 Clinical Rotation. This class consists of sixteen weeks of training in a hospital that is an Affiliate of Turtle Mountain Community College.

During this training period the students put into practice the policies, procedures and techniques they have learned from the Medical Technician Program Curriculum and performing hands-on procedures in the training TMCC training Laboratory. At this time the students interact with laboratory personnel, medical providers, nurses, and most importantly the patient.

While at the Clinical Rotation Affiliate site the students are directed to comply with the policies and procedures of the Affiliate, including those governing the use and disclosure of individually identifiable health information under federal law, specifically 45CFR parts 160 and 164. Solely for the purpose of defining the student's role in relation to the use and disclosure of the Affiliates protected health information, the trainees are defined as members of the Affiliate's workforce, as that term is defined by the Affiliate when engaged in activities pursuant to the agreement with the Affiliate. Nevertheless, the students are not and shall not be considered to be employees of the Affiliate.

Students are required to complete competency evaluation while in the Clinical Rotation. The professional performance standards are monitored throughout the sixteen week rotation noncompliance with these standards can result in removal from the program.

Clinical Rotation Affiliate sites for the Medical Laboratory Program are currently as follows:

1. Quentin N. Burdick Memorial Health Care Facility Belcourt, North Dakota.
2. Presentation Medical Center Rolla, North Dakota
3. Heart of America Medical Center Rugby, North Dakota

If a student cannot be placed in a Clinical site due to training slots being filled they will be given first priority in the next rotation cycle, or when a slot becomes available. Students will be selected based on academic achievement.

Student requests for a clinical rotation site are taken into consideration. Depending on the number of students a site can accept. Student requests for assignment to another Affiliate due to conditions other than academic performance will be reviewed by the Program Director.

# HEALTH AND SAFETY

The Turtle Mountain Community College does not have a Medical Services Office for students. We do have First Aid Stations that contain basic first aid materials, some medications. They are placed in several locations throughout the college. Students essentially are responsible for their own health needs. Should a student become ill; staff are trained to call 911 and all are trained in basic life support.

In their admission packets; Medical technician students are required to provide proof of rubella titer, tetanus immunizations, negative Tuberculin test or negative chest x- ray. Proof of immunity against measles, mumps and rubella if born after Jan 1, 1957

It is required that the Medical technician students complete 3 doses of the Hepatitis B vaccine before entering rotation or sign a waiver of refusal.

The MLT students receive training in General Laboratory safety, Chemical Safety, Blood-borne pathogens, Electrical, Fire, Radiation, Ergonomics, and needle stick injury training during their CLS 103 Introduction to MLT class the first semester. Students are required to read the policies and procedures for all Laboratory experiments and exercises before actual instruction begins.

Listed below are MLT

Safety policies that are addressed and reviewed in all MLT courses.

These policies include:

Contagious Diseases

Student Guidelines for Bloodborne Pathogen Exposure

Exposure Classification for Bloodborne Pathogens

Exposure Classification for Hazardous Chemicals

Health Science Exposure Chart

Latex Allergy Policy

The College has a Critical Alert system, known as ALERT NOW that is available to all students, faculty and staff. Each year a student, faculty or staff member can go on-line and list their phone numbers (home or cell). The system is designed so that if there is a critical emergency at any one of the campuses [such as medical emergencies severe enough to interrupt classes, weather emergencies or other emergency situations that would interrupt or cancel classes], anyone registered on the system will receive a phone call notifying them about the emergency and giving further instructions if classes are cancelled or a campus is closed.

While on rotation students are considered to be eligible for the same emergency health care as employees of the Affiliate site. All the clinical rotation Affiliates comply with the Emtela laws.

# LABORATORY SAFETY

## MANUAL

### SECTION I:

#### GENERAL SAFETY REQUIREMENTS

Safety in the laboratory requires every student's participation and cooperation. Noncompliance with safety precautions not only endangers the individual, but also compromises the health and safety of fellow students.

#### I. Student Responsibilities - Each student's responsibilities include:

- Complying with all safety policies and procedures;
- Maintaining awareness of the risks associated with assigned duties;
- Taking all necessary and appropriate safety precautions relevant to performance of duties;
- Becoming familiar with emergency procedures prior to accidental spills, overt personal exposures, fire
- Reporting unsafe conditions or practices to the Instructor;
- Reporting all incidents resulting in injury or exposure to hazardous agents to the Instructor.

#### **The following rules and procedures apply to Turtle Mountain Clinical Training Laboratory**

##### A. Personal

1. Hand washing- is the most important single precaution to prevent the spread of infections. Hands should be washed with soap and water, if visibility soiled, or waterless hand cleaner after: completing a task removing gloves immediately upon accidental contact with contaminated materials. Protective hand cream may be applied in the laboratory in the designated hand washing area.

## B. Dress Code

1. The use of a long sleeved laboratory coat (buttoned closed) or a back closed gown is required when working with patient specimens.
  - a. Clothing worn by laboratory students/Instructors should be clean, neat and in good repair.
  - b. Clothing worn by laboratory students/instructors should provide protection to the skin in the event of a chemical splash or spill. (OSHA laboratory standards (29CFR1910.1450 App. A) state that "Personnel (Instructors/students) should not wear loose (e.g. saris, dangling neckties, and over large or ragged laboratory coats), skimpy (e.g. shorts, strapless, cropped or halter tops) or torn clothing... Short trousers or miniskirts are inappropriate laboratory attire because laboratory coats open in the front when a person sits thereby exposing the legs above the knees to potential spills.
2. Personal Protective Equipment (PPE) such as fluid resistant gowns, gloves, goggles, face masks, face shields should be available and are required when there is significant probability that potentially hazardous substances may be splashed on the worker.
3. Shoes should be fluid impermeable material, leather or synthetic, and should cover the entire foot. Shoes with open toes are not unacceptable. Because cloth shoes will absorb chemicals or infectious fluids, they are not recommended.

## C. Specific precautions when working in the laboratory:

1. Food and beverages must not be stored in refrigerators, freezers, or other areas where biological materials are present. The laboratory area will designate those places where food and beverages may be stored, and identify them with appropriate signs
2. Eating, drinking, or chewing gum are not permitted in laboratories where biological materials are handled and work is performed. The laboratory shall designate areas where eating, and drinking are permitted.
3. Application of cosmetics and handling of contact lens will follow the guidelines for eating and drinking.
4. Long hair must be tied back when working near open flames or mechanical

equipment, where there is a possibility of entanglement, and when working with specimens.

5. Always use protective equipment that is provided for working with hazardous materials. Be familiar with the location and operation of eye washers, the location of fire extinguishers and other safety equipment.
6. No mouth pipetting. Mouth pipetting is prohibited.
7. Laboratory personnel will assure that only visitors or maintenance personnel who have been advised of the potential biohazards and have been warned to avoid touching any working surfaces will be allowed through the laboratory.
8. Smoking. The Turtle Mountain Allied Health Building is smoke-free. There are no designated smoking areas within the building.
9. Students are offered appropriate immunizations or test for agents handled in laboratory (ex. TB skin test annually, Hepatitis B vaccine)

#### D. Disposal of biological materials and expendable supplies

1. Unless there is evidence of contamination with blood, urine may be disposed through the sewage system. Use caution to prevent splatter. The empty container must be disposed in red bag lined trash containers or may be autoclaved.
2. Those specimens contaminated with blood should be disposed of in red biohazard bags or placed in buckets lined with biohazard bags to be incinerated.
3. Other body fluid, solid, and semi-solid waste including laboratory supplies (e.g. microbiological cultures) and urine should be placed in containers or buckets lined with biohazard bags, and sent to your designated area to be incinerated prior to disposal. The fill level must be below the rim of the container.
4. All specimens received in the designated area must be incinerated prior to disposal.
5. Specimen transport bags bearing the biohazard sign and gloves should be discarded in red bag trash.
6. Trash and paper, in the laboratory is also to be placed in biohazard bags.
7. Only Red biohazard and autoclave bags are to be used in the laboratory areas.

## E. Safe handling of Needles

Most needle sticks can be prevented by "safety awareness" on the part of the user. The Needle sticks can be prevented if the approved containers are used properly and with caution.

### 1. Recommendations for safe handling of needles and other sharps

- a. Needles containing safety devices, when available, are always to be applied after use when (ex. butterfly, protective needles and syringes).
- b. Needles and other sharps are never to be discarded directly into the trash.
- c. Needles and other sharps must not be unattended (i.e. on furniture, trays, equipment or in beds and linen).
- d. Needles are not to be clipped or bent. Destructoclips and similar devices are not to be used.
- e. Needles are never to be recapped by hand.
- f. Employees must never reach into any container used for disposal of contaminated sharps.

## F. Sharps Disposal

Items considered sharps are: needles, syringes, slides, glass pipettes, glass capillary tubes, scalpels and knives.

## SECTION II:

### STANDARD PRECAUTIONS

#### PRECAUTIONS

Standard Precautions expands the coverage of Universal Precautions by recognizing that any body fluid may contain contagious microorganisms

#### A. Nature of the risks

1. HEPATITIS: Most cases of laboratory associated hepatitis are caused by one of the following agents: Viral hepatitis, Hepatitis B virus (HBV) and Hepatitis C which accounts for most of the transfusion-associated Hepatitis cases seen in the USA. Laboratory acquired Hepatitis is now recognized as a major occupational hazard to laboratory workers handling biological materials.

2. AIDS: The etiology of Acquired Immunodeficiency Syndrome (AIDS) is a retrovirus called Human Immunodeficiency Virus (HIV). Transmission occurs from infected persons through direct intimate contact involving mucosal surfaces, such as sexual contact or through parenteral



spread such as shared needles and syringes. Airborne transmission and spread through casual contact has not been documented.

#### B. General safety requirements

All precautions listed under Section I of this manual will apply to standard precautions.

#### C. Standard Precautions Principle

Since medical history and examination cannot reliably identify all patients with blood-borne pathogens, all body fluids are treated as if known to be infectious for HIV, HBV, and other blood borne pathogens. Standard Precautions are designed to reduce the risk of transmission of microorganisms from both recognized and unrecognized sources of infection in the hospital. Standard precautions apply to blood and body fluids, secretions, excretions and all tissues. Standard precautions do not apply to sweat.

#### D. Exposure categories

1. Category I: Tasks that involve exposure to blood, body fluids, or tissues. All procedures or other job-related tasks that involve an inherent potential for mucous membrane or skin contact with blood, body fluids, or tissues, or a potential for spills or splashes of them, are Category I tasks. Use of appropriate protective measures should be required for every employee engaged in Category I tasks.

2. Category II: Tasks that involve no exposure to blood, body fluids, or tissues, but employment may require performing unplanned Category I tasks.

The normal work routine involves no exposure to blood, body fluids, or tissues, but exposure or potential exposure may be required as a condition of employment.

#### E. Standard precautions barrier protection.

Standard precautions include general safety precautions plus:

##### 1. Gloves will be worn when

- a. Handling blood, tissues, body fluids or items contaminated with blood or body fluids including specimen containers, laboratory instruments, counter tops, etc.
- b. Performing venipuncture, changing gloves and washing hands between each patient.

- c. Student's hands are abraded or active dermatitis is present.
2. Gloves will be replaced as soon as possible when contaminated, before touching non-contaminated items or surfaces.
3. Always wash hands with soap and water, for at least 15 seconds, following the removal of gloves or use an alcohol based hand rub solution.
4. To protect the mucus membranes, masks and eye protection, face shields splashguards or safety cabinets must be used if splashing or spraying of blood or body fluid is anticipated.
5. All lab coats, gloves, and other personal protective equipment must be removed prior to leaving the work area.
6. Soiled gloves, masks and other disposable personal protective equipment will be discarded into red bag-lined receptacles after use.

## GENERAL INFORMATION

Please refer to the TMCC WEB SITE for the following information:

- Under Current Student you will find the Student Hand book
- Under Community Resources you will find Project Choice
- TMCC Referral Guide and Resource Manual

These sites will give you additional valuable information.