THOMPSON RIVERS UNIVERSITY
OPEN LEARNING

Faculty of Arts

Competency Manual

MDLB 1991

Laboratory Practicum - Evaluation of National Competencies

206294

ONLINE AND DISTANCE EDUCATION

MDLB 1991: Laboratory Practicum Evaluation of National Competencies

Student Name: _____

Student Number: _____

Student Signature: _____

Open Learning Faculty Member Name: _____

Approval Date: _____

Faculty of Science

Competency Manual

MDLB 1991

Laboratory Practicum Evaluation of National Competencies

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Course Guide

MDLB 1991

Laboratory Practicum Evaluation of National Competencies

Table of Contents: Course Guide

Course Guide

Course Guide

This section provides information about course materials, course competencies, and how and when to contact your program coordinator. After you have read this Course Guide, review the remaining booklet for an overview of the expectations for your work in the course.

Course Structure

Welcome to MDLB 1991: *Laboratory Practicum - Evaluation of National Competencies*, which is the final component of the distance-delivered National Certificate program produced by Thompson Rivers University, Open Learning (TRU-OL).

MDLB 1991 represents the final portion of the Medical Laboratory Assistant Program in which the MLA's practical skills are evaluated.

Program and Clinical Practicum Length

The completion time for this laboratory practicum course is six weeks. The maximum completion time for the entire program from the start of the first course to graduation is two years.

Course Description

This practicum course is designed to evaluate specific technical and non-technical aspects of the medical laboratory assistant's work, according to criteria and curriculum developed by the Canadian Society for Medical Laboratory Science (CSMLS). This practicum is a competency-based training program held at a laboratory or clinical facility. The specific length and timing of the practicum will vary by facility.

Prerequisites

Prior to beginning MDLB 1991: *Laboratory Practicum - Evaluation of National Competencies*, a student must have successfully completed the following:

- HLTH 1981: *Medical Terminology*
- MDLB 1221: *Professional Practices and Safety in Health Care*
- MDLB 1321: *Phlebotomy Procedures and Specimen Preparation*
- MDLB 1521: *Microbiology Specimen Preparation*
- MDLB 1611: *Pre-Analytical Procedures for Histopathology*

These courses are presented in Open Learning formats, so students can expand their knowledge base while continuing to work in their community.

Upon successful completion of all required courses, a Medical Laboratory Assistant Certificate will be awarded from TRU, and the student will be eligible to write the CSMLS national certification exam.

Learning Outcomes

After completing this course, students will be able to:

- Safely and efficiently handle, process, and dispose of routine clinical specimens (including microbiology specimens, surgical specimens, and autopsy specimens).
- Consistently and efficiently collect appropriate blood samples (including venipuncture and capillary puncture).
- Respond appropriately to various special test requests and specimen collection circumstances.
- Perform pre-analytical procedures on specimens from a variety of sources.
- Make, or demonstrate knowledge of procedure, an acceptable blood smear and stain it.
- Load specimens, or demonstrate knowledge of procedure, onto automated instruments.
- Demonstrate a professional and competent attitude with patients and staff.
- Follow safety guidelines and protocols at all times.

Course Organization

The course is organized around evaluation checklists that itemize the specific skills and the standards used to evaluate the MLA. The evaluation checklists must be completed by a registered medical laboratory technologist (RT) or a certified MLA in a supervisory position who is familiar with the work performed by the MLA student, and who is able to observe the MLA at work, performing the activities related to the MDLB curriculum.

The evaluation process provided in this manual consists of nine modules. Each module includes the relevant competency-based objectives that the MLA is expected to achieve.

Module A: General Competencies

Module B: Blood Collection

Module C: Special Collection Procedures

Module D: Routine Urinalysis

Module E: Hematology Specimens

Module F: Microbiology Specimens

Module G: Histopathology Procedures

Module H: Non-Technical Evaluation

Module I: Final Summary and Evaluation

Each objective is further described using such information as:

- The knowledge required to correctly achieve the objective
- The skills required to achieve the objective
- A checklist of items applicable to the objective

Generally, the knowledge description refers to the information that the student MLA should understand and apply when performing the specific skill described. Much of this theory has been covered in previous related courses (see a list of these courses in the previous Prerequisites section).

Checklist Completion

To understand the nature of each objective fully, the student and evaluator should pay particular attention to the skills and attached checklists provided for each objective. Some skills are **"P" for Practice** (a student must perform the task) and some are **"O" for Observe** (a student is only required to observe the task being performed). The evaluator enters **"S" for Satisfactory** (performance) or **"IN" for Improvement Needed** in the appropriate column on the checklist to indicate how the student's development is proceeding with respect to each skill.

In the case of an "IN" evaluation, the evaluator and the student must draw up a development plan, with comments to explain the problem further, which should be included on the "Development Plan" form provided after each checklist. A candidate MLA must satisfactorily perform all skills before he/she can receive certification. Both the student and the evaluator must sign and date the completed checklists and objectives before submitting them to Thompson Rivers University.

Note to Evaluators:

Developmental Plan—Designated evaluators are encouraged to complete and review the Developmental Plan with the student at the end of each module on a weekly basis to provide the student with important formative feedback

On Completion

When you finish this course, ensure that you complete all checklists, and include both your printed name and written signature. Mail your completed booklet to your assigned Open Learning Faculty Member. Please contact her/him for a current mailing address.

Learning Objectives

The main objectives of MDLB 1991 are to evaluate specific technical and non-technical aspects of the MLA's work according to the criteria and curriculum developed by the CSMLS. Normally, evaluations are conducted by a medical laboratory technologist (MLT) or a certified MLA in a supervisory position at the clinical facility in which the MLA student is completing her/his practicum.

This Competency Manual describes the specific skills that the MLA must demonstrate, and the standards that govern the application of these skills. It is designed so you can systematically work through the skills and standards on your own and perform a self-evaluation prior to the final evaluation by the evaluator/supervisor. It is recommended that you utilize the checklist column in the various checklists provided in the Competency Manual and make appropriate comments for your own reference when modifications or development of skills are necessary. When either a student or her/his evaluator or supervisor identify areas of technical or non-technical skills as requiring modification or development, the program coordinator may be contacted to discuss a developmental plan. The structure of such a plan is likely to be unique to each student, and in some cases, it may involve establishing some formal practical experiences through which a student can develop and practice competencies.

Course Materials

Competency Manual

This Competency Manual contains instructional material that helps you to complete the learning outcomes. All the learning resources that you need for this course are included.

Textbook

The only text resource that you need is this Competency Manual; however, you may want to refer to the MDLB 1221/1321 course textbook *Phlebotomy Essentials* by McCall and Tankersley, as well as the *Laboratory Safety CSMLS Guidelines*.

Case Log

Included with this Competency Manual is a Case Log Sheet (see Appendix B). Use it to record blood draws and to note any problems or unusual situations that you experience. You can use this log during the weekly reviews between yourself and your training supervisor to discuss your progress and to verify the number of successful draws. This log is only for use by yourself and your manager. Do not use any confidential information for the patient identifier. You can use alternative forms of recording blood draws. However, they must be returned to TRU with the competency manual to confirm 200 successful venipunctures.

Reflection Log

Included with this Competency Manual is a Weekly Reflection Log (see Appendix C). Use this log to practice the skills you will learn in the "Fostering Reflective Practice" module online. See Appendix C for complete details.

Competency Requirements

Completion of Competencies

In certain circumstances, the workload of the MLA may not include some aspects of the curriculum identified in the evaluation documents. Please note that indicating "NA" for not applicable is **not** acceptable and that all competencies are to be met. If the training site has any issue with completing a competency, the student is responsible for contacting their Open Learning Faculty Member to arrange to have the competency completed either at an alternate site or by simulation. Common simulations can be found in Appendix A.

Consequences of Non-compliance

Unprofessional conduct or unsafe practice is unacceptable and may result in harm to patients and to laboratory staff. Ultimately, these behaviours may result in a student being asked to leave the practice education setting. Note that all evaluators and/or supervisors involved in the competency assessment are encouraged to consult regarding student practice, behaviours, and related practice setting stressors. Consultation is a useful strategy to resolve practice and behavioural issues.

Clinical Practicum Grading

In order to complete the clinical course successfully, the student is expected to:

1. Participate fully in the work experience.
2. Meet the clinical competency performance expectations as outlined in the clinical Competency Manual (MDLB 1991), and as set by the CSMLS.
3. Ensure all competencies and summaries are signed (legibly) before submitting. The evaluation checklists must be completed by a registered medical laboratory technologist (RT) or a certified medical laboratory assistant in a supervisory position who is familiar with the work performed by the MLA and who is able to observe the MLA at work, performing the activities related to the MDLB curriculum.

Evaluations

Complete and review the Competency Manual with the student on a regular basis to provide the student with timely indications of their progress.

- Review student log book entries and provide feedback.
- Complete Developmental Plans for all modules on a weekly basis to provide the student with formative feedback.
- A formal midway evaluation may be required.
- Review the *Evaluation of National Competencies* booklet; date and sign off on competencies met. The student must sign and date each module as well.
- The student must meet all required competencies by the end of their practicum placement.
- The final mark for MDLB 1991 will be either a Complete (COM) or No Credit Granted (NCG).

Roles and Responsibilities During the Clinical Placement

Program Administrator

- Ensures all admission documents are complete, including practicum placement form.
- Ensures all courses are completed with a passing grade before starting the clinical activities.
- Coordinates a practicum start date with the site manager and student.
- Assists clinical faculty with questions and concerns of the student or the site throughout the clinical.
- Ensures all grades are entered accurately in the TRU system.
- Upon completion of the practicum, recommends the student for graduation.

Open Learning Faculty Member

- Contacts student and preceptor when each student registers in the clinical course.
- Ensures students and preceptors understand the use of the assessment tool.
- Is readily available to answer questions and concerns of the student or the preceptor, by phone or email.
- Follows up with student and preceptor throughout the practicum.
- Responds quickly to queries of the site regarding any unusual problems experienced with the student's course of study.
- Reviews clinical document for completeness when received.
- Upon completion, enters the final grade.

Responsibilities of Clinical Site Manager

Prior to Starting the Practicum:

- Sign the practicum placement form as required for admission to the program.
- Communicate with the Open Learning Faculty Member to review the clinical Competency Manual and clinical requirements prior to start, if unfamiliar with procedures.
- Provide students with a thorough orientation to the clinical site if required.

During the Practicum:

- Helps student understand the role of the MLA.
- Assume a supervising role (direct and indirect) that helps to bridge the gap between theory and practice.
- Ensure that other employees involved with the student understand the expectations of their interactions with the student.
- Provide students with feedback on their progress throughout the practicum to better ensure success, using the Developmental Plan in each section of the practicum competency booklet to document strengths and weaknesses.
- Clearly document and discuss with the student any areas of concern immediately.
- Immediately inform the Open Learning Faculty Member of any barriers that may prevent the student from meeting all of the required competencies.

Upon Completion:

- Ensure all competencies in the booklet are signed off.
- Complete and sign legibly the final summary page of the booklet to be returned to the Open Learning Faculty Member.
- Sign evaluator form at the end of the practicum booklet.
- Highly recommended to complete an exit interview with the student for the purpose of receiving feedback from the student on the practicum experience.

Responsibilities of the Student

- Keep the Program Administrator advised of any change of practicum dates.
- Review the training schedule with your supervisor before beginning the practicum.
- Complete your daily logbook as required to ensure 200 successful venipunctures (included in the Competency Manual).
- Receive feedback and sign-off of competencies with initials/signatures as required.
- Maintain weekly contact with your lab supervisor to report on your progress.
- Listen to and discuss feedback given by trainers and preceptors in a respectful and inquisitive manner.
- Actively participate in your learning to successfully meet all required competencies.

- Immediately inform your supervisor and your Open Learning Faculty Member of any real or potential barriers to the successful meeting of all required competencies.
- Upon completion, ensure all competencies and the "Final Summary" pages have been signed legibly. Any blank competencies require discussion with your Open Learning Faculty Member **before** sending in for review.
- Abide by the following **Professional and Ethical Conduct for Students in the Clinical Setting**.

Professional and Ethical Conduct for Students in the Clinical Setting

1. Students will act ethically and responsibly at all times.
2. Students will respect confidentiality of the patient and the organization at all times.
3. Students will treat their host, preceptors, co-workers, and members of the public respectfully and courteously at all times.
4. Students will introduce themselves as a student to patients.
5. Students will seek supervision when needed or specified.
6. Students will accept responsibility and accountability for all relevant aspects of patient care within the limitations of the student role.
7. Students will come prepared for work and on time.
8. Students will dress appropriately for the clinical situation and display identification.
9. Students will become familiar with and follow training place host policies, procedures, and routines.
10. Students will follow host policies regarding hygiene, safety, and sanitation procedures.
11. Students will respect the premises and equipment of their clinical facility.
12. Students are not permitted to bring children or any other visitors to the clinical setting.
13. Students will respect the practicum site's policies on cell phone use.
14. Students will speak professionally during clinical training and avoid using slang.

Review the **CSMLS Code of Ethics** at

http://www.csmls.org/About-Us/Our-Members/Code-of-Ethics.aspx

Termination of Practicum

An MLA student may be dismissed prior to the fulfillment of his/her contract under any of the following circumstances:

1. Substantially substandard performance.
2. Consistent refusal of specific assignments.
3. Absence without leave from assigned duty.
4. Habitual tardiness.
5. Engaging in actions that are not site approved.
6. Unprofessional behaviour.
7. Medical or psychiatric illness for which treatment is refused or ineffective, and which impairs patient welfare.
8. Inability of the laboratory to perform its contractual duty due to circumstances beyond its control.

Other circumstances may result in minor deficiencies or shortfalls which can be addressed in the workplace of the MLA. When this occurs, the assigned faculty member and the Program Administrator should be contacted so that an appropriate developmental plan can be established. More serious shortfalls may require the use of a Student Performance Contract for the student to continue with the placement. **Depending on the additional training required, the student may incur extra expenses related to the training.**

Workplace Injury

What should be done if a student gets hurt on the work site?

1. Provide first aid at the site or arrange for medical assistance.
2. The host site supervisor should complete the appropriate internal incident report form.
3. Contact the TRU Program Administrator.

   The Educational Agreement between the host site and TRU gives details on coverage for workplace injuries, which differs for every province or territory.

Final Evaluation

Normally, the final evaluation of an MLA is performed by a supervising medical laboratory technologist or a certified medical laboratory assistant (as mentioned previously), unless other individuals provide the MLA with additional training in certain areas. In these cases, the instructor supervising or providing the training completes the appropriate sections of the evaluation manual.

Grade Determination

This course is assessed based on the evaluation manual—grades will not be issued. The transcript for MDLB 1991 will read "COM" (Complete) or "NCG" (No Credit Granted). A successful completion of all aspects of the evaluation will result in a successful completion of this course. If the entire evaluation is not successfully completed, a student must discuss a developmental plan with the Program Administrator, Science.

Faculty of Science

Introductory Activities

MDLB 1991

Laboratory Practicum Evaluation of National Competencies

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Introductory Activities

Objective

The following introductory activities include hands-on skills that must be practiced before patient interaction, as well as two online education modules that discuss reflective practice and dealing with conflict. These activities provide students with important learning tools as well as a systematic approach to practice these skills before beginning their training with patients.

Online Activities

Before attending the first session of your practicum, you are required to complete two modules offered through the learning management system at Western University. Each module includes a quiz to confirm completion of the module. **Completion of these two modules is mandatory to fulfill the requirements of MDLB 1991.**

In order to access this material, TRU students are asked to become students of Western by following the directions at https://owl.uwo.ca/portal/site/!pep. Personal information that is collected and stored for this access includes your first and last name, email address, password, and quiz results. This information will be collected, retained, and managed by Western University, not TRU. You are strongly advised NOT to use your TRU passwords when creating your Western University Learning Management System OWL account. Using a unique password for the Western Learning Management System will reduce the risk of unauthorized access to TRU systems in the event of a breach of security at Western. To learn more about Western University's privacy statement, please visit their Protection of Privacy webpage.

After successfully creating an account, complete the following two modules only (or more if you wish):

1. **Fostering Reflective Practice**
2. **Dealing with Conflict**

These modules take about 40 minutes each. You are not required to do any of the other modules. After completing each module, *print off the certificate of completion*. Your Open Learning Faculty Member must receive a copy of this certificate within the first week of your practicum. Please contact your Open Learning Faculty Member to discuss how they would like to receive your certificate.

If you have any difficulties accessing the website or the modules, please contact your Open Learning Faculty Member immediately.

Skills

1. Use of the Training Arm

The training arm offers new phlebotomists a way to get a feel for the texture, density, and shape of the skin and veins, and allows users unlimited opportunities to practice and perfect proper techniques. This is a great way for beginners to practice venipuncture and gain confidence.

2. Venipuncture on Volunteers

The first venipuncture by students should never be performed on a patient. Staff must be willing to volunteer their arms to new students to gain experience before their first patient collection.

3. Labelling Blood Tubes

The consequences of mislabelling can be devastating for patients. Descriptions of the potential consequences of a mislabelled tube are not appropriate for bedside training.

Standards

1. The minimum number of venipunctures required on the training arm is 6.
2. The minimum number of venipunctures required on volunteers is 4.

Evaluators

Instructions for delivering the introductory activities can be found in the preceptor manual.

Exemptions

(Indicate reason for exemption on checklists)

Allowed exemptions:

1. Use of training arm: working MLAs or those with recent phlebotomy training.
2. Venipuncture on volunteers: working MLAs or those with recent phlebotomy training.
3. Labelling Blood Tubes: working MLAs.

Introductory Activity 1 Checklist – Use of the Training Arm

Use of Venipuncture Training Arm (minimum 6)	1	2	3	4	5	6
• Wash hands.						
• Assemble equipment prior to venipuncture.						
• Put on gloves.						
• Select the appropriate venipuncture site.						
• Cleanse site using appropriate disinfectant and technique.						
• Apply tourniquet correctly.						
• Perform venipuncture, including the:						
— anchoring of vein						
— smooth and quick insertion of the needle at correct angle						
— stillness of the needle in the patient's arm						
— prompt and appropriate mixing of specimens						
— release the tourniquet prior to the removal of the needle						
— application of pressure to the puncture site with a clean gauze						
• Dispose of waste materials appropriately. Use designated labelled sharps containers for needles.						
• Performs multiple tube draw.						

Comments:

Trainer's name (please print):_____

Trainer's signature: _____ Date: _____

Student's name (please print) _____

Student's signature: _____Date: _____

Introductory Activity 2 Checklist – Venipuncture on Volunteers

Venipuncture on Volunteers (minimum of 4)	1	2	3	4	5	6
• Wash hands.						
• Assemble equipment prior to venipuncture.						
• Ensure correct patient identification.						
• Ensure patient is in a safe and accessible position.						
• Put on gloves.						
• Select the appropriate venipuncture site.						
• Cleanse site using appropriate disinfectant and technique.						
• Apply tourniquet correctly.						
• Perform venipuncture, including the:						
— anchoring of vein						
— smooth and quick insertion of the needle at correct angle						
— stillness of the needle in the patient's arm						
— prompt and appropriate mixing of specimens						
— release the tourniquet prior to the removal of the needle						
— application of pressure to the puncture site with a clean gauze						
• Re-examine the puncture site to ensure that bleeding is stopped.						
• Dispose of waste materials appropriately. Use designated labelled sharps containers for needles.						
• Performs multiple tube draw.						

Comments:

Trainer's name (please print):_____

Trainer's signature: _____Date: _____

Student's name (please print) _____

Student's signature: _____Date: _____

Introductory Activity 3 Checklist – Labelling Tubes

Labelling Blood Tubes	✓	Comments
• Knowledge of the importance of accurate labelling		
• Knowledge of the consequences of mislabelling		
• Demonstrate correct placement of labels		
• Identification of an incorrect match		
• Identification of an incomplete label		
• Awareness of the importance of owning up to errors made		

Additional Comments:

Trainer's name (please print)**:** _____

Trainer's signature: _____Date: _____

Student's name (please print) _____

Student's signature: _____ Date:_____

Faculty of Science

Module A: General Competencies

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Laboratory Practicum Evaluation of National Competencies

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Module A: General Competencies

Objective

The MLA will be able to safely and efficiently handle, process, and dispose of routine clinical specimens.

Skills

1. Accession, log in, and initiate specimen processing. (These skills may include receiving referred-in specimens, surgical or autopsy specimens, centrifugation, and the aliquoting of the sample.)
2. Disperse specimens and requisitions to appropriate areas.
3. Recognize specimen priorities and initiate appropriate action.
4. Dispose of and/or store specimens appropriately.
5. Package referral specimens according to appropriate policy as required.
6. Follow all safety protocols, regulations, and WHMIS guidelines.
7. Demonstrate effective communication skills.
8. Participates in Quality Assurance initiatives whenever possible.

Standards

1. Accession and process specimens according to institutional policy and without error 99% of the time.
2. Comply with safety standards and requirements 100% of the time.
3. Perform specified duties within required time limits.

Evaluator

As you evaluate the MLA's competencies described above, please refer to, complete, and sign the following checklist.

Under the "Minimum Level Required" column:

"P" means "Practiced Skill" (a student must perform the task),

"O" means "Observed Skill" (a student only observes the skill being performed.

Under the "S/IN" column:

Indicate an "S" for Satisfactory performance

Indicate an "IN" for Improvement Needed, meaning the performance needs more work.

Indicate an "SIM" for any competency that has been met by using a simulated activity.

After finishing every checklist, if an "IN" is indicated, complete the Development Plan with the student, found at the end of each module.

General Competency Checklist

S or IN	Minimum Level Required	Required Competencies
		Specimen Handling and Transport
	P	• Review requisition or collection labels to ensure all required information is available • Enter test requests into the computer following recognized MSP guidelines, i.e. PSA and TSH requirements. • Ensure specimens are labelled correctly. • Ensure requisitions and/or computer labels match the specimens. • Ensure specimens are kept at a proper storage temperature before processing. • Ensure specimen suitability, i.e. correct volume, hemolysis, fibrin clots etc.
	P	• Demonstrate safe and correct use of the centrifuge. • Use appropriate safety precautions. • Correctly use balance tubes. • Centrifuge specimens at the correct time, speed, and temperature.
	P	• Demonstrate safe and correct separation of blood specimens according to institutional protocol. • Ensure appropriate safety precautions. • Ensure proper removal of stoppers. • Ensure proper selection of aliquot containers. • Ensure proper pipetting techniques. • Ensure proper capping of specimens. • Ensure that aliquots/sample tubes are organized and delivered to the appropriate workstation. • Ensure proper storage of specimen when testing is complete.

S or IN	Minimum Level Required	Required Competencies
	P	• Ensure the correct loading of automated instruments, including: — Organizing specimens — Loading the racks into the instrument, if appropriate — Preparing and running quality control samples on equipment
	P	• Initiate corrective action if specimen is rejected, including reporting the error as per site protocol.
	P	• Maintain appropriate records of patients according to institutional protocol. • Maintain appropriate records for specimens that are referred to other laboratories. • Correctly prepare biological specimens for transport according to Transportation of Dangerous Goods (TDG) guidelines, i.e. prepare documentation, package specimens, seal, and label shipping container.
		Reagent Preparation
	P	• Prepares stains, stock solutions, working solutions, and /or media as per site protocols, i.e. prepare a 10% bleach solution for disinfection benches.
	P	• Clean glassware as per site's procedure
	P	• Utilize reagent or specimen preparation equipment, i.e. pH metre, pH paper, balance, scale, pipettes.
	P	• Monitor supplies for lot numbers, expiry dates. Restocks and rotates stock as needed.
		Safety
	P	• Knowledge of how to safely handle, store, and dispose of all biological and chemical materials.

S or IN	Minimum Level Required	Required Competencies
	P	• Knowledge of spill containment and clean up procedures for infectious materials and chemicals as per institution's protocols.
	O	• Apply WHMIS to labelling, dating, handling, storing, and disposing of chemicals, reagents, and solutions.
	O	• Report all safety incidences to the immediate supervisor as per institutional protocol.
	P	• Respond appropriately to all emergency codes, i.e., participate in a fire drill, or use spill kit to clean up a mock spill.
	P	• Practice standard precautions at all times.
	P	• Correct use of personal protective equipment correctly, i.e. gloves, gowns, N95 masks etc.
	P	• Utilize available laboratory safety devices in a correct manner, i.e. biological safety cabinet, fume hood, face shields.
	P	• Apply appropriate infection control practices, including disinfection and sterilization.
	P	• Apply occupational health and safety guidelines with respect to electrical, biological, fire, and radiation hazards where applicable.
		Office Procedures
	O	• Knowledgeable about time sensitive collections (i.e., ionized calcium, blood gas, etc.) as well as demonstrate the correct usage and completion of laboratory requisition forms.

S or IN	Minimum Level Required	Required Competencies
	O	• Utilize appropriate office equipment to demonstrate the steps for proper patient and sample identification in all stages of data entry. i.e., specimen collection and handling, to generating reports to physician, computer, to store and retrieve data.
	O	• Have knowledge and procedure requirements as well as be able to complete referred out specimen requisitions such as Transfusion Service, or other specialized area
		Quality Management
	P	• Provide feedback in work flow analysis, identify issues and problem solve.
	P	• Complete necessary documentation for critical incidents or accidents involving patients or specimen processing, i.e. provincial reporting system
	P	• Complete documentation required for recording temperatures of equipment, as required
	P	• Complete documentation required for recording maintenance of equipment, as required, i.e. cleaning refrigerators or centrifuges.
	P	• Follow standard operating procedures — assist in procedure reviews and participate in new initiatives if possible
	P	• Participate in internal and external quality assurance and quality improvement activities, i.e. proficiency testing, audits, accreditation, etc.

S or IN	Minimum Level Required	Required Competencies
	P	• Use critical thinking skills to assess evolving situations in the workplace and the consequences of those changes. Contribute to implementation strategies that accommodate for priorities and integrate timelines, resource management, and communication related to projects or research/studies, i.e., how a department adjusts staff and workload to allow for training a student.

Evaluator's name (please print)**:** _____

Evaluator's signature: _____Date:_____

Student's name (please print): _____

Student's signature: _____ Date: _____

Module A: General Competencies - Developmental Plan

1. What areas of this objective meet or exceed expectations?
2. What areas of this objective need improvement?
3. What are the specific problems?
4. What actions could/will be taken to complete this competency successfully?

5. How long will the student have to exhibit corrective action?

For those competencies requiring improvement, outline a plan to improve performance, achieve specific goals, or develop the required skills. **Be clear and specific**.

Evaluator's signature: _____ Date: _____

Student's signature: _____Date: _____

Faculty of Science

Module B: Blood Collection

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Module B: Blood Collection

Module B: Blood Collection

Objective

The MLA will be able to consistently and efficiently collect appropriate blood samples (including venipuncture and capillary puncture).

Knowledge

1. Demonstrate knowledge about anatomy and physiology through the proper selection of collection sites.
2. Demonstrate knowledge about legal issues by obtaining the patient's consent to collect the sample and by maintaining patient confidentiality.
3. Demonstrate knowledge about anticoagulants and equipment by the proper selection and use of equipment and tubes.

Skills

1. Assess patient and test requirements to determine whether venipuncture or capillary puncture is required.
2. Practice correct venipuncture or capillary puncture technique (according to the following checklist) and successfully collect the appropriate samples on a consistent basis.
3. Assess and monitor patients' well-being.

Standards

1. Collect appropriate samples 99% of the time.
2. Obtain samples with minimal discomfort to the patient, with 90% success on the first attempt.
3. Comply with safety policies and blood collection protocol 100% of the time.
4. Perform a minimum of 200 collections by venipuncture. Record results in Case log, Appendix B.
5. Perform capillary punctures as required and appropriate, demonstrating correct technique for finger puncture and heel puncture.
6. Correctly identify patient and label specimens 100% of the time.

Venipuncture Checklist

S or IN	Minimum Level Required	Required Competencies
	P	• Greet patient, identify themselves, and explain their purpose.
	P	• Ensure correct patient identification according to institutional protocol, including rules of confidentiality.
	P	• Obtain consent from the patient. Respects the patient's right to refuse, if necessary.
	P	• Identify, describe, and select appropriate blood collecting equipment.
	P	• Demonstrate appropriate choice of anticoagulated tubes for collection and determine additives and their requirements for testing procedures.
	P	• Select and assemble equipment prior to venipuncture, such as vacutainer, correct gauge of needle.
	P	• Ensure patient is in a safe and accessible position.
	P	• Apply tourniquet correctly.
	P	• Select appropriate venipuncture site.
	P	• Cleanse site using appropriate disinfectant and technique.

S or IN	Minimum Level Required	Required Competencies
	P	• Perform venipuncture according to institutional protocol, including the: — smooth and quick insertion of the needle — stillness of the needle in the patient's arm — Follow correct order of draw — Observe correct volumes as required for sample — prompt and appropriate mixing of specimens — release of the tourniquet prior to the removal of the needle — application of pressure to the puncture site with a clean gauze or cotton swab
	P	• Correctly label the tubes at the bedside/collecting workstation.
	P	• Re-examine the puncture site to ensure that bleeding is stopped before leaving the patient.
	P	• Dispose of waste materials appropriately. Use designated labelled sharps containers for needles.
	P	• Recognize signs of patient stress and initiate appropriate response.
	P	• Demonstrate adaptive skills when dealing with patients with varying degrees of acuity.

Evaluator's name (please print)**:** _____

Evaluator's signature:_____ Date: _____

Student's name (please print): _____

Student's signature:_____ Date: _____

Capillary Checklist

S or IN	Minimum Level Required	Required Competencies
	P	• Ensure correct patient identification according to institutional protocol, including rules of confidentiality.
	P	• Identify, describe, and select appropriate blood collecting equipment.
	P	• Demonstrate appropriate choice of anticoagulated tubes for collection.
	P	• Assemble equipment prior to skin puncture.
	P	• Ensure patient is in a safe and accessible position.
	P	• *Select* the appropriate puncture site (finger in children and adults; heel in newborns). Puncture not required.
	P	• Perform capillary puncture according to established protocol, which includes the following criteria: — warming the puncture site (where necessary) — cleansing the puncture site with appropriate disinfectant — allowing the puncture site to dry — puncturing the site using proper technique — wiping off the first drop — collecting the specimen into the appropriate micro collection containers for collection and knowledge of minimum and maximum level requirements for testing procedures, following the correct order of draw for capillary collection — applying pressure to the puncture when complete
	P	• Seal, mix and correctly label specimens at patient bedside

	P	• Dispose of waste materials appropriately. Use designated labelled sharps containers for lancets
	P	• Examine puncture site and apply bandage if necessary/appropriate

Evaluator's name (please print)**:** _____

Evaluator's signature: _____ Date: _____

Student's name (please print):_____

Student's signature: _____ Date: _____

Module B: Blood Collection - Developmental Plan

For those competencies requiring improvement, outline a plan to improve performance, achieve specific goals, or develop the required skills. **Be clear and specific**.

1. What areas of this objective meet or exceed expectations?
2. What areas of this objective need improvement?
3. What are the specific problems?
4. What actions could/will be taken to complete this competency successfully?

5. How long will the student have to exhibit corrective action?

Evaluator's signature:_____ Date: _____

Student's signature: _____ Date: _____

Faculty of Science

Module C: Special Collection Procedures

MDLB 1991

Laboratory Practicum Evaluation of National Competencies

Table of Contents

Module C: Special Collection Procedures

Module C: Special Collection Procedures

Objective

The MLA will be able to respond appropriately to various special test requests and specimen collection circumstances.

Skills

1. Demonstrate the correct technique for the collection of blood from hand-veins and/or foot veins when necessary.
2. Demonstrate an awareness of institutional protocol for various "special tests" including glucose tolerance tests (GTT), timed collections (e.g., therapeutic drug monitoring and coagulation tests), blood cultures, Transfusion Medicine samples, and point-of-care testing.
3. Comply with institutional guidelines when blood collection is not successful (e.g., when the maximum number of punctures permitted prior to requesting assistance is reached).
4. Demonstrate an awareness of the patient's legal right to refuse blood collection.

Evaluator

This section requires some "institutional" interpretation, since special collection procedures may vary from facility to facility. Even though the certification criteria of MLAs does not prescribe the exact numbers and conditions of the specific circumstances, Thompson Rivers University would like to document the exposure and opportunities the MLA has to demonstrate awareness and/or competencies in these areas. Refer to the following checklist and check the relevant and applicable boxes. Comment where appropriate.

Special Collection Procedures Checklist

S or IN	Minimum Level Required	Required Competencies
		• Provide the appropriate collection instructions, documentation, and labelling specimen container information for the following specimens/tests:
	O	• Urine: — routine urinalysis — culture and sensitivity — 24-hour collection — non-legal urine drug screens — urine drug screens required for legal testing — urines for cytology testing
	O	• Semen
	O	• Feces
	O	• Sputum
	O	• Blood Glucose, Glucose Tolerance Test
	O	• Cholesterol and Triglyceride
		• Demonstrate proper technique, procedure, and documentation for the collection of the following specimens, tests, or procedures:
	P	• Blood cultures—ensure correct timing and volume
	O	• Glucose tolerance tests
	O	• Therapeutic Drug Levels
	P	• Transfusion Medicine samples
	O	• Isolation procedures

S or IN	Minimum Level Required	Required Competencies
	P	• Hand vein/foot vein collection
	P	• Demonstrate knowledge of laboratory protocol regarding unsuccessful venipunctures and the number of attempts permitted.
	P	• Demonstrate knowledge of the laboratory protocol to follow if a patient refuses venipuncture.
	P	• Follow chain of custody procedures for legal specimens according to institutional protocol. Simulation available, see Appendix A.
	P	• Perform point-of-care techniques, identify sources of interference, and initiate corrective action as delegated.

Evaluator's name (please print)**:** _____

Evaluator's signature:_____ Date: _____

Student's name (please print):_____

Student's signature:_____ Date: _____

Module C: Special Collection Procedures - Developmental Plan

For those competencies requiring improvement, outline a plan to improve performance, achieve specific goals, or develop the required skills. **Be clear and specific**.

1. What areas of this objective meet or exceed expectations?
2. What areas of this objective need improvement?
3. What are the specific problems?
4. What actions could/will be taken to complete this competency successfully?

5. How long will the student have to exhibit corrective action?

Evaluator's signature:_____ Date: _____

Student's signature: _____ Date: _____

Faculty of Science

Module D: Routine Urinalysis

MDLB 1991

Laboratory Practicum Evaluation of National Competencies

Table of Contents

Module D: Routine Urinalysis

Module D: Routine Urinalysis

Objective

The MLA will be able to consistently and efficiently perform a routine urinalysis and produce accurate results.

Knowledge

1. Demonstrate knowledge of routine urinalysis specimens.
2. Demonstrate the preparation of urine for a microscopic examination.
3. Demonstrate knowledge of 24-hour urine measurement and aliquoting.
4. Demonstrate knowledge of preservatives and their proper use.

Skills

1. Perform routine urinalysis accurately.

Standards

1. Perform a routine urinalysis successfully 99% of the time.
2. Correctly identify specimens 100% of the time.
3. Comply with safety policies 100% of the time.

Routine Urinalysis Checklist

S or IN	Minimum Level Required	Required Competencies
	P	• Demonstrate the ability to provide instructions for common urinalysis tests.
	P	• Handle the urinalysis strips correctly.
	P	• Perform a correct dipping technique.
	O	• Manually read the strip and record the results correctly.
	P	• Use an automated reader to read the strip and record the results correctly.
	P	• Prepare specimens requiring a microscopic examination.
	P	• Correctly measure 24-hour urine specimens; aliquot samples, label, and store appropriately.
	P	• Ensure the safe handling of specimens.
	P	• Ensure the safe disposal of specimens.

Evaluator's name (please print)**:** _____

Evaluator's signature:_____ Date: _____

Student's name (please print):_____

Student's signature:_____ Date: _____

Module D: Routine Urinalysis - Developmental Plan

For those competencies requiring improvement, outline a plan to improve performance, achieve specific goals, or develop the required skills. **Be clear and specific**.

1. What areas of this objective meet or exceed expectations?
2. What areas of this objective need improvement?
3. What are the specific problems?
4. What actions could/will be taken to complete this competency successfully?

5. How long will the student have to exhibit corrective action?

Evaluator's signature:_____ Date: _____

Student's signature: _____ Date: _____

Faculty of Science

Module E: Hematology Specimens

MDLB 1991

Laboratory Practicum Evaluation of National Competencies

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Module E: Hematology Specimens

Objective

The MLA will be able to make an acceptable blood smear, stain it, and load specimens onto the automated instrument.

Knowledge

1. Demonstrate knowledge of the correct collection tubes and specimen handling required for hematology tests.
2. Demonstrate knowledge about the proper technique for making an acceptable blood smear for hematology.
3. Demonstrate knowledge about the proper blood smear staining technique (both manually and automated).
4. Demonstrate knowledge about the proper loading of specimens and the correct placement of loading racks in the automated instrument.

Skills

1. Demonstrate an ability to make and stain a blood smear.
2. Demonstrate the knowledge of how to load an automated hematology instrument.

Standards

1. Make and stain an acceptable hematology blood smear 99% of the time.
2. Load specimens and place them correctly onto an automated instrument 99% of the time.
3. Make at least 10 slides.
4. Stain at least 2 slides.
5. Label specimens and slides correctly 100% of the time.
6. Comply with safety policies 100% of the time.

Hematology Specimens Checklist

S or IN	Minimum Level Required	Required Competencies
		Use the correct technique for making blood smears
	P	• Obtain a well-made slide with smooth appearance and feathered edge.
	P	• Make slides from EDTA specimens.
	P	• Make thick and thin slides as required.
	P	• Ensure slides are correctly labelled.
	P	• Ensure slides are allowed to dry completely.
	P	• Stain slides either manually or using an automated stainer.
	P	• Ensure the safe handling of all specimens and have an awareness of time sensitive tests.
	P	• Ensure the safe disposal of all specimens.
	P	• Ensure the correct loading of specimens into racks.
	P	• Ensure the correct placement of specimens onto the instrument.

Evaluator's name (please print)**:** _____

Evaluator's signature: _____Date: _____

Student's name (please print):_____

Student's signature:_____Date: _____

Module E: Hematology Specimens - Development Plan

For those competencies requiring improvement, outline a plan to improve performance, achieve specific goals, or develop the required skills. **Be clear and specific**.

1. What areas of this objective meet or exceed expectations?
2. What areas of this objective need improvement?
3. What are the specific problems?
4. What actions could/will be taken to complete this competency successfully?

5. How long will the student have to exhibit corrective action?

Evaluator's signature:_____ Date: _____

Student's signature: _____ Date: _____

Faculty of Science

Module F: Microbiology Specimens

MDLB 1991

Laboratory Practicum Evaluation of National Competencies

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Module F: Microbiology Specimens

Objective

The MLA must be able to receive Microbiology specimens and to ensure that they have been properly transported. In addition, the MLA must be able to perform the pre-analytical preparation of Microbiology specimens and the appropriate staining procedure correctly.

Knowledge

1. Demonstrate knowledge about the proper reception of specimens including labelling, transport, refrigeration, etc.
2. Demonstrate knowledge about how the specimens should be collected and who should collect them.
3. Demonstrate knowledge about how to process specimens correctly, including the selection of media, inoculation techniques, streaking techniques, and the incubation of specimens in the appropriate environment.
4. Demonstrate knowledge about the various stains performed in microbiology.

Skills

1. Receive and process microbiology specimens correctly.

Standards

1. Receive and accession microbiology specimens correctly 99% of the time.
2. Process microbiology specimens correctly 99% of the time.
3. Stain microbiology slides correctly 99% of the time.
4. Process at least 10 specimens.
5. Label specimens, media, and slides correctly 100% of the time.
6. Comply with safety policies 100% of the time.

Microbiology Specimens Checklist

S/IN	Minimum Level Required	Required Competencies
	P	• Ensure the correct reception of specimens (refer to Module A: General Competencies).
	P	• Ensure correct processing of specimens, including blood cultures; use a biological safety cabinet as required. — Select media to be used. — Label media. — Inoculate media with specimen. — Streak media. — Incubate media at the correct temperature and atmosphere. — Knowledge of specimen preparation for transport.
	P	• Knowledge of the correct processing of slides: — Make slides correctly. — Fix slides correctly. — Stain slides with the appropriate stain.
	P	• Ensure the use of aseptic technique in all procedures.
	O	• Knowledge of automated plating methods and of automated plating machine, if available.
	O	• Observe use of anaerobic jars and/or chamber.

Evaluator's name (please print)**:** _____

Evaluator's signature: _____ Date: _____

Student's name (please print): _____

Student's signature: _____ Date: _____

Module F: Microbiology Specimens - Developmental Plan

For those competencies requiring improvement, outline a plan to improve performance, achieve specific goals, or develop the required skills. **Be clear and specific**.

1. What areas of this objective meet or exceed expectations?
2. What areas of this objective need improvement?
3. What are the specific problems?
4. What actions could/will be taken to complete this competency successfully?

5. How long will the student have to exhibit corrective action?

Evaluator's signature:_____ Date: _____

Student's signature: _____ Date: _____

Faculty of Science

Module G: Histopathology Procedures

MDLB 1991

Laboratory Practicum Evaluation of National Competencies

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Module G: Histopathology Procedures

Module G: Histopathology Procedures

I: General Competencies

Objective

The MLA will be able to perform duties within the Histopathology Laboratory related to the accessioning, handling, gross examination, and storage of tissue specimens safely and efficiently.

Knowledge

The MLA will demonstrate knowledge of the role of the Histopathology Laboratory and its staff in patient care and treatment, including:

1. The roles of the various staff members.
2. The critical steps involved in preparing specimens for microscopic examination.
3. The types and sources of specimens submitted for examination.
4. The basic concepts of how a diagnosis is established from microscopic examination of tissue specimens.
5. Technical procedures that may be used for:
    - Routine investigations
    - Rapid investigations
    - Special investigations

Skills

1. Accession and sort specimens received for examination into appropriate sequence.
2. Locate required patient and specimen information and enter it into Laboratory Information System (LIS).
3. Recognize specimens that require special handling or additional enquiries.
4. Dispose of, store, or file, containers, and tissues, in accordance with laboratory regulations.
5. Prepare the gross room for use.
6. Clean up the gross room and equipment after use, in accordance with established protocols.

Standards

All standards must be met 100% of the time. There can be no allowable margin of error in the handling of tissue specimens and related safety issues.

1. Accession and sort routine tissue specimens in the gross room, ensuring that each specimen is matched with correct requisition (20 specimens/ requisitions in 20 minutes).
2. Separate similar specimens from each other in the numbering sequence.
3. Allocate reference numbers (and part numbers) to tissue specimens and requisitions correctly.
4. Enter patient/specimen information into the LIS correctly (20 specimens/ requisitions in 20 minutes).
5. Follow all laboratory guidelines regarding specimen handling.
7. Prepare, at least 5 times, the gross room/bench for use by the technologist or pathologist. Ensure that aprons, gloves, masks, and gowns are available.
6. Perform clean-up of the gross room/bench and equipment using approved procedures.
7. Handle all tissues, empty containers, and biohazardous materials according to established laboratory protocols.
8. Place all used “sharps” into approved sharps containers.

General Competency Checklist

S/IN	Minimum Level Required	Required Competencies
		Specimen Handling and Organization:
	P	• Accession and sort tissue specimens, matching specimens and requisitions, and separating similar specimens.
	P	• Allocate reference numbers, locate all relevant information, and enter patient and specimen data into the Laboratory Information System.
	P	• Take appropriate actions for specimens that are unlabelled, unfixed, or show other anomalies.
	P	• Retain and correctly store any remaining specimen samples for possible future requirements.
	P	• Dispose of empty containers into secure disposal containers for future incineration.
	P	• Monitor and replenish reagent levels and supplies.
		Gross Room:
	P	• Prepare the gross room for use, including instruments, protective apparel, and gloves.
	P	• Follow approved protocol for clean-up of the gross room, surfaces, instruments, and equipment.
	P	• Place all contaminated materials, gloves, paper towels, disposable aprons, etc. in a biohazard container.

S/IN	Minimum Level Required	Required Competencies
		Safety:
	P	• Control ventilation/extraction systems to remove vapours from the work area.
	P	• Follow approved procedures for handling, storage, and disposal of fixatives, solvents, and other WHMIS-controlled substances.
	P	• Follow approved procedures for handling, storage, and disposal of biohazardous materials.
	P	• Follow approved procedures for handling, and disposal of sharp instruments and objects.
	P	• Know the location of WHMIS reference materials, spill kits, and safety equipment.

II: Fixation and Tissue Processing Competencies

Objectives

1. The MLA will be able to assist in the preparation of tissues specimens for processing efficiently and effectively.
2. The MLA will be able to operate correctly and maintain appropriately a routine tissue processor.

Knowledge

The MLA will demonstrate knowledge of:

1. The role and effects of fixation in the preparation of specimens for Histopathology and Cytology examination.
2. Commonly used fixatives.
3. The basic concepts of tissue processing.
4. The use and maintenance of tissue processors.
5. Safety issues relating to fixatives and processing reagents.

Skills

1. Assist the technologist or pathologist in the handling, preparation, and identification of tissue specimens for routine processing.
2. Prepare cassettes for use.
3. Enter details of specimen information, number of blocks selected, and part numbers into the LIS.
4. Demonstrate correct procedures for handling fixative solutions.
5. Operate and maintain a tissue processor for routine use.
6. Demonstrate correct procedures for handling, storing, monitoring, and disposal of processing fluids.
7. Initiate, when indicated, procedures to remove calcium from tissue specimens.
8. Identify specimens for Cytology examination and perform fixation and preparation procedures in accordance with laboratory protocols.

Standards

All standards must be met 100% of the time. There can be no allowable margin of error in the handling and processing of tissue specimens.

1. Select and label correctly 20 cassettes in 5 minutes.
2. Confirm that each specimen is placed into the correct, labelled cassette.
3. Place tiny tissue fragments between sponge pads or wrap in lens paper to avoid loss.
4. Close cassette lids and submerge cassettes in fixative.
5. Enter correct numbers of blocks, orientation details, and other information into the LIS during the gross examination.
6. Perform, at least 3 times, routine maintenance on a tissue processor.
7. Perform, at least 3 times, routine fluid exchanges on a tissue processor.
8. Ensure that processing fluids are maintained at the correct levels.
9. Dispose of used processing reagents in accordance with laboratory guidelines.
10. Comply with laboratory guidelines regarding handling of fixative solutions.
11. Comply with laboratory regulations for disposal of fixative solutions.
12. Maintain an adequate supply of molten wax.
13. Maintain log of alcohol consumption.
14. Ensure that Cytology specimens are handled promptly in accordance with laboratory protocols.

Fixation and Tissue Processing Checklist

S/IN	Minimum Level Required	Required Competencies
		Gross Examination and Fixation:
	P	• Select and label clearly, using a permanent marker and suitable cassettes for each tissue specimen.
	P	• Follow laboratory guidelines regarding use of coloured cassettes for specific specimens.
	P	• Assist the technologist or pathologist with the gross examination of specimens, including marking surgical margins and correct orientation.
	P	• Use approved procedures to ensure that tiny fragments are not lost from the cassettes.
	P	• Verify that each portion of tissue is clearly identified and is placed in the correct cassette.
	P	• Use LIS correctly to enter specimen and block information during gross examination.
	P	• Begin decalcification process, in accordance with laboratory protocol.
	P	• Place labelled, loaded cassettes into fixative to await processing.
		Tissue Processing:
	P	• Place cassettes into processor, select appropriate schedule, and start processor.

S/IN	Minimum Level Required	Required Competencies
	P	Perform routine maintenance on a tissue processor, including: - Checking seals and filters - Checking fluid container connections - Maintain processing fluids at recommended levels - Daily cleaning and flushing according to approved protocols - Periodic hot water flushing
	P	Perform according to laboratory guidelines, routine fluid exchanges involving: - Fixative - Dehydrating alcohols - Clearing agent - Paraffin wax
	P	Dispose of, in accordance with laboratory and local regulations: - "Neutralized formalin" - alcohols - Xylene and other solvents - "used" paraffin wax
	P	Maintain records of alcohol consumption.
	P	Maintain paraffin wax levels in molten wax dispensers/ storage vessels.
	P	Assist the technologist with preparation of Cytology specimens, including Gynecological smears, fluids, aspirates, Cytospin preparations, and cell blocks. Simulation available, see Appendix A.

III: Slide and Tissue Block Competencies

Objective

1. The MLA will be able to label slides correctly and efficiently.
2. The MLA will be able to file processed tissue blocks and slides correctly and efficiently.
3. The MLA will be able to locate and retrieve previously filed tissue blocks and slides.
4. The MLA will be able to assist with the preparation of slides for cytological examination.

Knowledge

The MLA will demonstrate knowledge of:

1. Slide labelling practices and requirements.
2. The importance of correct filing practices.
3. The reasons why blocks or slides may be required for further examination.
4. Selected routine staining procedures and slide mounting.

Skills

1. Label glass slides with specimen reference numbers and part numbers.
2. Follow laboratory procedures for filing processed tissue blocks and glass slides.
3. Locate and retrieve previously filed tissue blocks and glass slides.
4. Follow laboratory procedures for staining and mounting slides.

Standards

All standards must be met 100% of the time. There can be no allowable margin of error in the handling of tissue specimens.

1. Label slides with correct specimen reference numbers and part numbers.
2. Files processed tissue blocks correctly (correct numerical sequence, correct position).
3. Files slides correctly (correct numerical sequence, correct position).

Slide and Tissue Block Checklist

xS/IN	Minimum Level Required	Required Competencies
	P	• Labels slides according to established protocols correctly and efficiently.
	P	• Assist the technologist with selected staining methods (H&E, Papanicolaou, manual or automated).
	P	• Assist the technologist with slide mounting, manual, or automated.
	P	• Files processed tissue blocks in accordance with established laboratory practices.
	P	• Files glass slides in accordance with established laboratory practices.
	P	• Locates and retrieves previously filed tissue blocks and slides.

Section I, II and III

Evaluator's name (please print)**:** _____

Evaluator's signature:_____ Date: _____

Student's name (please print):_____

Student's signature:_____ Date: _____

Module G: Histopathology Procedures - Developmental Plan

For those competencies requiring improvement, outline a plan to improve performance, achieve specific goals, or develop the required skills. **Be clear and specific**.

1. What areas of this objective meet or exceed expectations?
2. What areas of this objective need improvement?
3. What are the specific problems?
4. What actions could/will be taken to complete this competency successfully?

5. How long will the student have to exhibit corrective action?

Evaluator's signature:_____ Date: _____

Student's signature: _____ Date: _____

Faculty of Science

Module H: Non-Technical Evaluation

MDLB 1991

Laboratory Practicum Evaluation of National Competencies

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Module H: Non-Technical Evaluation

Module H: Non-Technical Evaluation

Objective

The MLA student will perform their duties in a professional manner in the clinical setting.

Skills

1. Students will act ethically and responsibly in all situations.
2. Students will respect the confidentiality of the patient and the organization.

   Students will treat their host, preceptors, co-workers, and members of the public with respect and courtesy.
3. Students will introduce themselves as a student to patients.
4. Students will seek supervision when needed or specified.
5. Students will be punctual for work and take breaks appropriately. In the event that a student will be late or absent, prior contact must be made with the supervisor and program coordinator.
6. Students will dress appropriately for the clinical situation and display identification.
7. Students will become familiar with and follow the policies, procedures, and routines of their place of training.
8. Students will follow host policies regarding hygiene, safety, and sanitation procedures.
9. Students will respect the premises and equipment of their clinical facility.
10. Students are not permitted to bring children or any other visitors to the clinical setting.
11. Cell phone use and checking personal email is prohibited during working hours.
12. Students will speak the common language of the facility while in the clinical training setting and will avoid the use of slang and inappropriate language (swearing).

Non-Technical Evaluation Checklist

S or IN	Minimum Level Required	Required Competencies
	P	• Arrives on time for work and takes breaks appropriately.
	P	• Understands the effectiveness of time management and establishing priorities and is able to demonstrate these skills.
	P	• Completes tasks within an acceptable time.
	P	• Maintains personal hygiene and professional appearance.
	P	• Follows written and verbal instructions; however, can make evidence-based decisions when needed and appropriate.
	P	• Works independently when necessary and is motivated and maintains an appropriate attitude in the workplace.
	P	• Deals with problems encountered with composure; reflects on problems and possible solutions, takes steps to correct mistakes and is accountable for their actions.
	P	• Consults supervisor regarding unusual problems or situations, while being aware of the guidelines surrounding interpersonal communication and interaction.
	P	• Is responsible and accountable for their professional actions and practices which includes, but not limited to, maintaining a clean, tidy, and safe work environment.

S or IN	Minimum Level Required	Required Competencies
	P	• Works cooperatively in both small and large groups and promotes interdisciplinary collaboration.
	P	• Communicates, both in writing and verbally, in a manner that is clear and concise.
	P	• Interacts with others (including peers, technologists, supervisors, physicians, other healthcare professionals, and patients) in a professional manner.
	P	• Is aware of barriers to effective communication. Uses strategies to communicate effectively in complex situations.
	P	• Recognizes other forms of communication, i.e. nonverbal gestures and body language.
	P	• Follows site guidelines with respect to scope of practice. Seeks guidance when unsure. Is aware and able to follow confidentiality rules as they apply in each situation.
	P	• Exercises a judicious approach to the right to refuse to participate in potentially dangerous situations, i.e. concern for personal safety (code white).
	P	• Promotes the image of the MLA and raises awareness of their contributions to healthcare.
	P	• Anticipates, contributes to, responds to, and effectively works in a changing environment.

Evaluator's name (please print)**:** _____

Evaluator's signature: _____ Date: _____

Student's name (please print):_____

Student's signature: _____ Date: _____

Module H: Non-Technical Evaluation - Developmental Plan

For those competencies requiring improvement, outline a plan to improve performance, achieve specific goals, or develop the required skills. **Be clear and specific**.

1. What areas of this objective meet or exceed expectations?
2. What areas of this objective need improvement?
3. What are the specific problems?
4. What actions could/will be taken to complete this competency successfully?

5. How long will the student have to exhibit corrective action?

Evaluator's signature: _____ Date: _____

Student's signature: _____ Date: _____

Faculty of Science

Module I: Final Summary and Evaluation

MDLB 1991

Laboratory Practicum Evaluation of National Competencies

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Module I: Final Summary and Evaluation

Module I: Final Summary and Evaluation

At the end of the practicum, primary evaluator should review this evaluation with the student. All questions or concerns should be discussed at that time.

Please comment on the general efficiency, professionalism, and competency of the student. This commentary would be helpful if the facilitator is contacted for references by prospective employers.

Final Evaluator's name (please print)**:**_____

(see Evaluator form next two pages)

Final Evaluator's Signature: _____Date: _____

Evaluator's Title: _____

Student's Name: (print please) _____

Student's Signature:_____Date:_____

MEDICAL LABORATORY ASSISTANT PROGRAM

Memorandum

To: MLA Supervisor/Evaluator

From: Jean Crowe, Program Administrator
OL Delivery, Science

Re: Evaluation of MLA Competencies: MDLB 1991

Thompson Rivers University, Open Learning offers a distance delivered program designed to provide certification for Medical Laboratory Assistants. The first five courses in the program represent the academic/theory requirements established by the CSMLS. The final component in the certification program is MDLB 1991; it entails examining and evaluating the MLA's practical competencies as they are performed in the workplace and ensuring they satisfy the objectives and standards provided by Thompson Rivers University (TRU), Open Learning.

The student will be mailed the training booklet for the practicum, which includes detailed checklists and full instructions for completion and submission of the evaluation. Students should bring the competency booklet with them on the first day of training.

The evaluators signing the competency manual will be CSMLS registered Medical Laboratory Technologists or certified Medical Laboratory Assistants. Other health care professionals may also assist in the training. At the end of the booklet the laboratory manager or accession supervisor will sign off, which signifies that she/he has reviewed all competencies with the student in the event that the training was completed by a delegate.

** The Developmental Plan pages at the end of each section of the booklet *must be used* to review the student's progress on a weekly basis and to document improvements required. This is the only proof that formative assessments are being done for the student; proof that is required in the event that the practicum is not completed successfully.

The evaluation process begins by completing the attached form and faxing it to the coordinator. If there are further questions regarding any aspect of the evaluation process, do not hesitate to call the Program Administrator at (250) 852-7235. When completed, return the booklet to the student who will mail it to TRU. Thank you for your assistance.

MEDICAL LABORATORY ASSISTANT PROGRAM

Evaluation of Competencies Agreement

I, _____ agree to evaluate the

(Please Print)

Medical Laboratory Assistant competencies of _____according to Thompson Rivers University, Open Learning MDLB 1991 "Laboratory Practicum - Evaluation of National Competencies" manual. I understand that successful completion of this evaluation will allow the above named student to become certified as a Medical Laboratory Assistant and be eligible to write the CSMLS examination for MLAs.

I have no personal relationship with the student.

I am a CSMLS registered Medical Laboratory Technologist* in a supervisory role to the above named student and am familiar with the work performed.

My position in the laboratory is _____

I can confirm that all personnel involved in the education of the student have the appropriate professional credentials (certified MLT or MLA) and have the skills required to train students.

My work address is:

_____

_____

_____

_____ _____

(Signature) (Date)

*Note: If you are not a CSMLS registered Medical Laboratory Technologist, describe your experience and qualifications below.

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Appendix A: Simulated Activities

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Appendix A: Simulated Activities

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Cytology Simulations

Objectives:

1. To simulate the steps involved in the handling and preparation of cytology specimens for microscopic examination in laboratories that do not have a cytology service.
2. Realistic simulations of cyto-preparation procedures can be done without undue difficulty.
3. All procedures should be performed using full safety and biohazard protocols.

Gynecological specimens:

The first three steps are carried out by the training technologist.

1. Simulated material can be prepared by scraping the surface of any solid tissue. Prostate works well.
2. Spread the material evenly on a clean, labelled glass slide.
3. Place the slide into 95% alcohol immediately to fix.
4. The MLA student receives the fixed smear and a requisition.
5. Ensure the slide and requisition match. The MLA student should already be familiar with entering information into the LIS.
6. Place the slide into a staining rack.
7. Place the staining rack onto the automated slide stainer. Cervical smears would be stained by the Papanicoloau method, for simulation purposes an H&E set up will suffice.
8. Remove the stained slide from the stainer.
9. Mount the slide manually or using an automated coverslipper.

Non-Gynecological specimens:

Introduction

There is a wide range of potential specimens: sputa, ascitic, and pleural fluids, fine needle aspirates, nipple secretions, skin scrapings, bronchial brushings, urine, or other fluids. Although the specimens differ, the preparation procedures share a number of common steps.

- The simulation should attempt to replicate:
    - a specimen with a high cell content (sputum or fine needle aspirate), and
    - a specimen with a low cell content (ascitic fluid or urine)
- Genuine specimens of sputa, fluids, and urine can usually be obtained from the microbiology section. Otherwise, cells scraped from solid tissues and suspended in saline with a couple of drops of blood will produce a convincing ascitic fluid.
- Simulated specimens should be put into appropriately labelled specimen containers. An accompanying requisition should be completed.
- The MLA student will produce a number of smears and a cell block from each specimen.
- The MLA student should already be familiar with entering information into the LIS
- The MLA student will follow standard precautions and use the appropriate PPE.

High cell content specimen:

1. Stress that specimens should be processed promptly to avoid cell breakdown.
2. Specimens that cannot be handled immediately should have an equal volume of 50% alcohol added.
3. Place the specimen into a conical centrifuge tube and spin for 5 minutes to produce a cell button.
4. Label 4 slides per specimen with patient's name, and specimen type. Label two of the slides "alcohol fixed," label the other two "air-dried."
5. Decant the supernatant from the centrifuge tube and discard it.
6. Using a disposable pipet, place a small amount of the cell concentrate on each slide and spread it out using the edge of a clean slide.
7. Immediately place the ''alcohol fixed'' slides into a Coplin jar filled with 95% alcohol.

8. Leave the other slides to air dry.
9. Do not discard any remaining cellular material.
10. Stain the alcohol-fixed slides on an automated stainer and apply a coverslip.
11. Stain the air-dried slides with a Romanowsky stain (Hematology stainer).

Low cell content specimen:

1. Stress that specimens should be processed promptly to avoid cell breakdown.
2. Specimens that cannot be handled immediately should have an equal volume of 50% alcohol added.
3. If there is sufficient volume, fill several conical centrifuge tubes, and spin.
4. Decant the supernatant.
5. Combine the cell buttons to obtain as much cellular material as possible and spin again.
6. Label 4 slides per specimen with patient's name, and specimen type. Label 2 of the slides "alcohol fixed," label the other 2 "air-dried."
7. Decant the supernatant from the centrifuge tube and discard it.
8. Using a disposable pipet, place a small amount of the cell concentrate on each slide and spread it out using the edge of a clean slide.
9. Immediately place the "alcohol fixed" slides into a Coplin jar filled with 95% alcohol.
10. Leave the other slides to air dry.
11. Do not discard any remaining cellular material.
12. Stain the alcohol-fixed slides on an automated stainer and apply a coverslip.
13. Stain the air-dried slides with a Romanowsky stain (Hematology stainer).

Cyto-Spin Centrifuge Preparations:

If the laboratory has a Cyto-Spin or similar instrument, the MLA student would benefit from a brief hands-on demonstration of its use for fluids with low cell content.

Cell Block Preparation:

1. Any remaining cellular material from the above procedures can be made into a cell block.
2. Use a commercially prepared product such as histogel. Alternatively, prepare an aqueous 5% agar solution.
3. Melt 2mL of gel/agar in a tube in hot water for each cell block to be prepared.
4. Add 2mL of liquid gel/agar to each conical tube and spin immediately.
5. Allow the gel/agar to solidify for a couple of minutes.
6. Carefully remove the cell button from the tube.
7. Place the cell button in a labelled tissue processing cassette or wrap in lens paper for processing.
8. Place on the tissue processor the same as any other tissue sample.

Chain of Custody Procedure for Legal Specimens

Introduction

Chain of custody is the ability to, legally, track a sample from collection through testing.

Objective

This procedure simulates how to label a sample for legal purposes.

Note: This procedure should not require a patient collection. The collection portion of the procedure can be a mock collection.

Required material

A mock collection kit, including:

- Two tubes that the training site would use for a blood alcohol level.
- An iodine swab or the swab that the training site would use for a blood alcohol level.
- Two blank labels, large enough to be placed over the stopper of the collection tubes and still make contact with the tube itself.
- A sealable plastic bag the fits the tubes.
- A label to seal the plastic bag.
- A copy of the chain of custody document provided in this simulation.

Pre-Procedure Discussion

1. A physician directs the procurement of a legal blood alcohol level to be collected by laboratory staff.
2. A police officer will be present for the entire collection. The police officer will have a collection kit.

Procedure

1. Correctly identify the patient.
2. Swab the arm using the appropriate swab.
3. Perform a mock collection using the two tubes in the collection kit.
4. Label the tubes according to the training site's policy.

5. Write the following information on the labels that will be used to seal the tubes and the bag:
    - Full patient name
    - Time and date of collection
    - Initials of the blood collector
    - Initials of the police officer (training technologist can do this)
6. Seal the stoppers on the tubes using the labels.
7. Put the specimens into the plastic bag and seal.
8. Place the last label over the seal of the plastic bag.
9. Fill out the chain of custody form.

CHAIN OF CUSTODY COLLECTION FORM					
Sample Type	Patient full legal name	Date of birth	Sample collected by: Print name and sign	Date collected	Signature of Police officer

Chain of Custody Documentation		
Date and time	Samples packaged for transport by:	Samples relinquished to:
Date and time	Samples received by:	Samples relinquished to:

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Appendix B: Case Log Sheet

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Appendix B: Case Log Sheet

Must be filled out and returned. 200 successful collections required.

Please do not use confidential information for the patient identifier.

Date	Patient Identifier	Type of Collection	Successful?

Date	Patient Identifier	Type of Collection	Successful?

Date	Patient Identifier	Type of Collection	Successful?

Date	Patient Identifier	Type of Collection	Successful?

Date	Patient Identifier	Type of Collection	Successful?

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Appendix C: Weekly Reflection Log

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Appendix C: Weekly Reflection Log

After completing the PEP module "Fostering Reflective Practice" found in the Introductory Activities, you should have an understanding of how to complete a reflection log. Your assignment is to write a reflection log a minimum of once per week.

Pages will be supplied in this booklet for this log, but you may choose a personal logbook. The submissions will not be graded; your Open Learning Faculty Member will simply acknowledge that they have been received. You only need to share information from the log that you are comfortable sharing. If you would like feedback on your log, please let your Open Learning Faculty Member know.

Please contact your Open Learning Faculty Member to discuss the best way to accomplish this communication.

Here are some ideas for completing a reflection log.

A self-reflective statement is a way to document your personal responses to experiences, activities, etc., and enables self-awareness along with personal and professional growth.

- First, describe briefly what happened or what you did.
- Next, interpret how things went by using one (or more) of these sets of terms:
    - Strengths and weaknesses
    - Successes and setbacks
    - Impact on your values, beliefs, or communication style
    - Try using one of these words: meaningful, significant, important, relevant, or useful.
- Finally, ask yourself what you have learned due to this experience.
- Answer one (or more) of these questions:
    - What can you do to improve your learning?
    - How will you extend your learning past what is expected?
    - What did I learn? What will I change? What do I need to know more about?
    - What have I learned about myself (my abilities, strength/weaknesses)?

Length can vary, but typically should range from 100–400 words, or one to three paragraphs.

Be sure to maintain confidentiality by not naming any co-workers or patients.

Submission examples:

1. Orientation day was hectic! I met a lot of people who were _____. I felt _____ at the beginning of the day and _____ at the end. I am going to ask _____. I was surprised at _____. (Why?)
2. I was working in emergency last week and shared information about the patient's diagnosis, as I felt it was important information for the team to know. Now I am wondering if I breached confidentiality. (Also add what you found out later and how you will proceed in the future.)
3. Today I learned _____. I have a better understanding of _____. Tomorrow I want to make sure that I know _____.
4. Today I was practicing _____ and felt inadequate because I did not know the answer or the procedure. (What I did to find out? What I will do tomorrow?)
5. I felt so sorry for a patient today because_____. (Include what you said, how you felt later, and how to proceed next time.)

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