The Department of Laboratory Medicine & Pathology (LMP) graduate studies program is proud to offer a course and practicum-based Pathologists’ Assistant program designed so that graduates will be eligible to write both the Canadian and American certification exams once accreditation is obtained.

I hope the Handbook will serve as a valuable resource for you in the planning and management of graduate training in the program, but please do not hesitate to contact the LMP graduate studies office directly at any time should you have concerns or questions.

Sincerely,

Monika Keelan, PhD
Associate Professor | Graduate Coordinator
Program Director, Pathologists’ Assistant Program
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1 OVERVIEW

Pathologists’ Assistants work in an environment which necessitates:

- fine motor skills
- visual acuity
- long periods of standing
- working under high pressure
- exposure to chemicals
- infectious disease risks
- strong communication skills
- computer work
- confidentiality.

The course- and practicum-based program leads to a Master of Science in Laboratory Medicine and Pathology with specialization as Pathologists’ Assistant (PA). The program has been designed so that graduates will be eligible to write the Canadian Certification Council of Pathologists’ Assistants (CCCPA-CCCAP) certification exam for Pathologists’ Assistant. Graduates will also be eligible to write the American Society for Clinical Pathology (ASCP) certification exam once accreditation is obtained from NAACLS.

It is a continuous 24 month program, consisting of two terms (8 months) of didactic courses, followed immediately by a clinical practicum (16 months) and a scholarly research component in either basic or clinical research.

The clinical practicum component of the program will be competency-based with students expected to successfully complete all competencies in the grossing station and autopsy suite, including safety, photography, professionalism, ethics, laboratory management, quality assurance, gross examination, dissection, dictation, synoptic reporting, preparation and examination of the human body, procurement of specimens.
2 APPLICATION AND ADMISSION

A maximum of 2 students will be accepted into the program each year.

2.1 Requirements

2.1.1 Academic Requirements

Applicants require:

1. at least a baccalaureate or its academic equivalent.
2. the following prerequisites: Microbiology (3 units of course weight (UCW)), Biology (6 UCW), Physiology (3 UCW), Biochemistry (6 UCW), ANAT 200 or equivalent, English (6 UCW)
3. successful completion of a medical terminology course. This course can be in any format (online, in person, correspondence) and taken from any institution.
4. an admission grade point average (GPA) of at least 3.0 on the University of Alberta 4-point scale, or the equivalent qualification from another institution – this is calculated on the most recent course work (equivalent to 60 UCW or the last two years of full-time study).

2.1.2 Language Requirement

Proof of English language proficiency (ELP) is required if the applicant does not hold a degree from countries or international universities listed on the Faculty of Graduate Studies and Research exemptions page. The following ELP examinations are recognized; minimum scores required by Laboratory Medicine and Pathology are:

- internet-based TOEFL score: 95 with at least 20 per section;
- paper-based TOEFL score: 570);
- IELTS (Academic) score: 7.0 with at least 6 on each band;
- PTE (Academic) score: 65;
- MELAB score: 91;
- CAEL score: 70 with at least 70 on each subtest.

2.2 Application and Supporting Documents

Applications are submitted via the online graduate application system. Except for reference letters, all supporting documents are uploaded directly in pdf format only as part of the online application process.

2.2.1 Required documents:

1. Official transcripts or marksheets and degree certificates from each university or post-secondary institution previously attended.
2. Proof of English language proficiency (if necessary).
3. Proof of successful completion of a Medical Terminology course.
4. Curriculum vitae or resumé (do not use the University of Alberta’s CV Form)
5. Letter of intent. This letter should address the following:
   - Why have you chosen this profession?
   - Why are you a good fit for this profession?
   - What are your professional goals and ambitions?
   - Demonstrate / reflect on your attention to detail, fine motor skills, ability to multitask and manage competing priorities, computers skills.
6. Three letters of recommendation; these must be received by the documents deadline.
A. References may be academic or work. The online application system requests 2 work references and 1 academic reference. This is a guideline only; we will accept any combination of work and academic references.

B. Applicants are to advise their referees to address the following in the General Appraisal section of the referee form or as a separate document:
   1. Provide an appraisal of the following specific qualities of the applicant:
      a. Critical thinking / problem solving
      b. Work ethic / industriousness
      c. Multitasking / managing competing priorities
      d. Judgment
      e. Attention to detail
      f. Fine motor skills
      g. Communication skills
   2. Address the applicant's ability to carry on advanced study and research, teaching ability, potential for successful study in the applicant's field, and weaknesses, if any. Please provide specific examples to support your comments.

2.2.2 Application and Documents Deadline

The admit term for the Pathologists' Assistant program is Fall (September). Applications and all supporting documentation must be received by February 1.

2.3 Admission Decision

2.3.1 Evaluation of Applications

Only complete application packages received by the deadline will be considered. Applications will be reviewed to ensure the applicant has the necessary prerequisite courses, meets the minimum academic requirement, and the English language requirement. All eligible applications will be assessed and ranked by the program's admissions committee. Candidates who are shortlisted will be invited to an interview (in person or via videoconference).

2.3.2 Offers of admission

Laboratory Medicine and Pathology will make recommendations for admission for successful applicants to the Faculty of Graduate Studies and Research (FGSR). The FGSR makes a final review of the application, and only the FGSR may extend the official offer of admission.

Unsuccessful applicants will be notified by the LMP Graduate Program office.

2.4 Additional Requirements

Admitted students are responsible for these additional requirements and any fees associated with them.

   Police Information Checks: Applicants should be aware that a clear Police Information Check, which must include a Vulnerable Sector Check, is required at the time of admission. Students who fail to provide a clear Police Information Check may be required to withdraw from their program. See the University of Alberta Calendar for more information on the general requirements concerning Police Information Checks and the fees associated with them.

   Immunizations: Students are required to obtain specified immunizations. The form and further details will be provided on admission to the program.
3 GUIDELINES AND RESPONSIBILITIES

3.1 Graduate Students - Guidelines and Responsibilities

Graduate students are ultimately responsible for their own programs. They are expected to read the University of Alberta Calendar and any other relevant documents to become familiar with all regulations and deadlines relating to their program.

The student’s fundamental responsibilities include:

- ensuring their registration is accurate and does not lapse;
- submitting appropriate forms to the department for signature and processing; and
- paying all fees required by the deadline dates set out in the Calendar.

Graduate students should:

- make themselves aware of the contents of the graduate portions of the Calendar and take responsibility for their own programs in that the Calendar sets out the requirements for the various programs;
- be aware of possible scholarship opportunities, and seek advice and assistance from the department in making applications, etc;
- be aware of the advisor’s and any departmental expectations;
- meet with the academic advisor two times per year;
- maintain open communication with their advisor and graduate coordinator concerning any problem; and in the event of a conflict in the advisor-student relationship, discuss with the advisor and graduate coordinator in a timely fashion (see Complaints and Conflicts for further information);
- make research results accessible to an appropriate audience;
- follow and meet the regulations and requirements of the Faculty of Graduate Studies and Research, (FGSR) and the Department of Laboratory Medicine & Pathology.

(“FGSR Grad Program Manual Section 1.1”)

3.2 Program Director / Academic Advisor – Guidelines and Responsibilities

The Program Director serves as the Academic Advisor for graduate students in this program.

3.2.1 Academic Advisor Responsibilities

The academic advisor is essential to the successful pursuit by the student of the course-based master’s degree. The academic advisor will:

- provide appropriate guidance to the student in course selection, course changes, and progress within the program;
- meet with a full-time student no less than two times in an academic year;
- explain the rationale and review with the student any administrative and/or curricular changes that have occurred since their last scheduled meeting and any impact that such changes will have (or potentially might have) on the student’s progress;
- where appropriate, consider a graduate student a junior colleague;
• maintain open communication with the student concerning any problem; and in the event of a conflict in the advisor-student relationship, discusses the issues with the student and graduate coordinator in a timely fashion.

(FGSR Grad Program Manual Section 1.3)

3.2.2 Program Director Responsibilities

The program director must:

• be responsible for the organization, administration, instruction, evaluation, continuous quality improvement, curriculum planning and development, directing other program faculty/staff, and general effectiveness of the program; …

• have regular and consistent contact with students, faculty, and program personnel.

(NAACLS Standards for Accredited and Approved Programs)

3.3 Education Coordinator – Roles and Responsibilities

“The education coordinator / clinical coordinator ... must provide supervision and coordination of the instructional faculty in the academic and clinical phases of the education program.”

(NAACLS Standards for Accredited and Approved Programs)

3.4 Medical Director – Roles and Responsibilities

“The medical director must provide continuous medical direction for clinical instruction. The medical director must actively elicit the understanding and support of practicing physicians, and must participate in the clinical instruction of pathology within the program.”

(NAACLS Standards for Accredited and Approved Programs)

3.5 Department – Guidelines and Responsibilities

The student is responsible for successfully completing all course work and the capping exercise. Where the capping exercise involves a project, the student is responsible for producing a typed report of the project or some other finished product to be retained by the department.

It is the responsibility of the department to:

• verify that all courses and the capping exercise have been successfully completed before recommending a student for graduation.

• submit to the FGSR a Report of Completion of Course-based Master’s Degree form. Where applicable, this form is accompanied by a Grade Change form, changing the Project grade from Incomplete to Credit.

• The completed forms must be received by the FGSR before the student's name is placed on the convocation list.

• Departments must adhere to the deadlines found in the Academic Schedule of the Calendar for submitting the forms to the FGSR. Failure to meet these deadlines will result in a delay in awarding the degree.

(FGSR Grad Program Manual Section 8.5)
3.6 Graduate Studies Committee - Roles and Responsibilities

The role of the Graduate Studies Committee is to:

- promote and enhance graduate studies;
- set policy as defined in the LMP graduate program handbooks;
- review and make decisions as necessary regarding admissions and student awards;
- assist in monitoring graduate student progress; and
- assist in the informal appeals or grievance processes.

The graduate program in Laboratory Medicine and Pathology is administered by the Graduate Studies Committee which normally consists of the Department Chair, the Graduate Studies Coordinator, the Director of the Pathologists' Assistant program, at least 4 additional faculty members (where at least 50% must be actively supervising graduate students), 1-2 graduate student representatives, and the Graduate Program Advisor who is a non-voting member. All faculty members of the Graduate Studies Committee are appointed by the Department Chair for a defined term of service.

At least 3 faculty members plus the Graduate Studies Coordinator are required for quorum.

3.7 Graduate Coordinator - Responsibilities

1. Acts as the official graduate program representative of the Department to the FGSR.
2. Communicates relevant information from the FGSR to students and faculty members in the Department.
3. Communicates relevant information to the FGSR and the Faculty of Medicine & Dentistry regarding students in the Department.
4. Is accessible for consultation with students and faculty members in the Department.
5. Monitors student supervision and ensures that the academic advisors meet regulations and requirements of the FGSR and the department.
6. Ensures that applications for graduate studies are complete, and that the applicants meet the admission criteria before forwarding the applications to FGSR.
7. Ensures that each course-based MSc student has an academic advisor.
8. Monitors the progress of all students in the Department.
9. Chairs meetings of the LMP Graduate Studies Committee.
10. Is an ex officio member of the LMP Awards Committee.
11. Is responsible for grade approval for graduate level LABMP courses.

Relationships between Graduate Coordinators and the staff and graduate students in their program(s) should be academic. Any personal relationships that alter or affect this academic relationship may constitute a conflict of interest (e.g., familial or intimate relationship, business relationship). Compliance with the University of Alberta’s Conflict Policy – Conflict of Interest and Commitment, and Institutional Conflict is mandatory. Persons may not act as Graduate Coordinator for matters in which they have a conflict of interest.

3.8 Graduate Student Financial Assistance / Awards

Students are fully responsible for paying all required tuition and fees by the deadline dates set out in the Calendar.
Financial assistance in the form of scholarships or awards may be available to qualified students. See LMP Awards and Funding and FGSR Awards and Funding for awards information pertinent to LMP students.

3.9 Complaints and Conflicts

3.9.1 Coursework Complaints

Concerns regarding coursework or grades should be addressed first with the course instructor and, if that proves unsatisfactory, then with the chair of the department where the course is taught, and finally with the dean of the faculty in which the course is taught or that dean's designate (usually the associate dean).

For detailed guidelines of the informal and formal grade appeals process see the Faculty of Medicine and Dentistry’s Policy and Procedure on Academic Appeals. Specific timelines apply.

Grades cannot be appealed beyond the Faculty level.

The Office of the Student Ombuds may be consulted for advice at any time.

3.9.2 Practicum Intervention Policy

The Calendar states that “the University has an obligation to protect the public interest, public safety, and public health by ensuring that students in practicums conform to accepted standards of professional, competent and safe practice in their work with patients, clients, and co-workers.” Accordingly students in the Pathologists’ Assistant program are governed by the University of Alberta’s Practicum Intervention Policy under which a Dean may intervene in the practicum of a student. Students have the right of appeal.

3.9.3 Student/Advisor Conflicts

At times, conflicts may arise between the student and advisor or course instructor/Coordinator.

- The first step is to try to resolve the conflict or misunderstanding informally. The advisor (or course instructor/Coordinator) and student should discuss the problem together.

- If resolution is unsuccessful, the graduate coordinator should be notified as early as possible. It is the responsibility of the graduate coordinator to arrange for consultation and mediation.

- Assistance/advice of other appropriate resources may be requested.

- Finally, assistance of the FGSR may be requested.

- The Office of the Student Ombuds may be consulted for advice at any time.
4 MASTER’S PROGRAM – Pathologists’ Assistant

4.1 Time Limits for Program Completion (MSc)

The Pathologists’ Assistant program is a continuous 24 month program: 8 months of coursework, followed by a 16 month clinical practicum and project.

4.2 Registration Requirement

Students in this program will be registered full-time each Fall, Winter, Spring, and Summer term for two years. 51 units of course weight will be taken.

If proof of registration is required, registration verification can be obtained from the Registrar’s Office.

4.3 Academic Standing and Grades

- LMP graduate students must maintain a cumulative program GPA of 3.0
- The passing grade for graduate courses is C+ (2.3)
- If the cumulative grade point average falls between 2.3 and 3.0, termination of program or continuation in the program for a specified probationary period may be recommended.
- Notwithstanding the above, a graduate student whose academic standing falls below a grade point average of 3.0 may be required to withdraw at any time.

4.4 Professional standards

Pathologists’ Assistant students must adhere to the Professional Standards for Students, “a code of values, expectations and conduct [constructed] to reflect the ideals that are integral to professionalism.”

4.5 Program requirements

4.5.1 Required coursework:

- Mandatory courses (21 units of course weight (UCW)), clinical practicum (24 UCW), and graded research project (6 UCW):

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<tr>
<th>Year 1</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td>ANAT 503 (6): Human Anatomy</td>
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<td>LABMP 500 (3); Introduction to Human Disease</td>
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<td></td>
<td>LABMP 593A (1.5): Systemic Pathology</td>
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<td>LABMP 595A (1.5): Laboratory Management</td>
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<tr>
<td><strong>Winter</strong></td>
<td>ANAT 500 (3): Human Development</td>
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<td>LABMP 593B (1.5): Systemic Pathology</td>
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<tr>
<td></td>
<td>LABMP 594 (3): Anatomic Pathology Techniques</td>
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<td></td>
<td>LABMP 595B (1.5): Laboratory Management</td>
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<tr>
<td><strong>Spring / Summer</strong></td>
<td>LABMP 596 (6): Pathologists’ Assistant Clinical Practicum I</td>
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<th>Year 2</th>
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<tbody>
<tr>
<td><strong>Fall</strong></td>
<td>LABMP 597 (6): Pathologists’ Assistant Clinical Practicum II</td>
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<td></td>
<td>LABMP 900A (3): Research Project</td>
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<tr>
<td><strong>Winter</strong></td>
<td>LABMP 598 (6): Pathologists’ Assistant Clinical Practicum III</td>
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If credit has already been granted in LABMP 400, ANAT 400, or ANAT 403, the student will not be permitted to take the corresponding LABMP 500, ANAT 500 or ANAT 503 and will be required to complete a directed reading course(s) LABMP 540 in a related topic.

4.5.2 Directed Research Project

LABMP 900 Directed Research Project. The course is an independent research project supervised by a pathologist, pathologist's assistant or researcher. The student will choose the advisor and research project. The advisor will provide mentorship for the project. Seminar sessions cover topics relevant to conducting independent scientific research. The student will be expected to write a research proposal, keep an accurate laboratory notebook, and conduct adequate experimental research. The project will be written as a research paper and presented at departmental rounds.

As per FGSR policy, the report of the project must be retained by the department.

Students are requested to deposit their final research paper and presentation into ERA, the University of Alberta’s Education and Research Archive.

4.5.3 Ethics and Academic Integrity Training Requirement

Ethics and Academic Integrity Training is mandatory for all newly-admitted University of Alberta graduate students. Eight hours of training is required.

This requirement is to be completed in the first 8 months of the program.

The Department of Laboratory Medicine & Pathology (LMP) Graduate Studies Committee has determined that the Ethics and Scientific Integrity (ESI) Day offered by the Faculty of Medicine and Dentistry is a mandatory component of this training for LMP students. The ESI Day supplies 5 hours training.

LMP has a number of approved choices for obtaining the remaining 3 hours of training (listed below); for Pathologists’ Assistant students, the Graduate Ethics Training (GET) Course is suggested.

1. Graduate Ethics Training (GET) Course via eClass
2. LABMP 530 or LABMP 535
3. Another graduate level university ethics course or course with ethics components (PHS 543, PHIL 550, MED 650, INT D 670, INT D 570 or others as approved by the LMP Graduate Studies Committee)
4. Submission of a completed ethics review application to an established Human or Animals Research Ethics board.
5. HSLAS (Health Sciences Laboratory Animal Services) training course
6. Tri-Council ethics tutorial

It is the responsibility of the graduate student to register for these sessions and to submit documentation of completion of these sessions to the LMP Graduate Program office.
4.5.4 **Presentation/Seminar Attendance Requirement**

1. Master’s students are required to make one oral presentation to the department at LMP Rounds. Student LMP Rounds presentations are scheduled for half an hour, generally a 20 minute presentation followed by a short question period.

   Students in the Pathologists’ Assistant program will present their research project.

2. In order to obtain a broad perspective on a wide range of topics in laboratory medicine and pathology, students in the Pathologists’ Assistant program are expected to attend specified department seminars. Proof of attendance will be required.

4.5.5 **Instructional Methods Course**

Completion of a non-credit instructional methods course is required. This requirement can be met by any instructional methods / teaching program including, but not limited to, Level One of the University of Alberta’s [Graduate Teaching and Learning program](#). Online educational methodologies courses are also available.
5  Meetings with Academic Advisor

It is the responsibility of the academic advisor to meet with a full-time student no less than two times in an academic year.

The graduate student should be made aware at each meeting whether they are making satisfactory or unsatisfactory progress.

The advisor must explain the rationale and review with the student any administrative and/or curricular changes that have occurred since their last scheduled meeting and any impact that such changes will have (or potentially might have) on the student's progress.

An email record of the meeting, summarizing the discussion, will be sent from the advisor to the student and copied to the graduate program advisor for inclusion in the student file.
6 Professional Development

FGSR recognizes that professional development (PD) for graduate students is becoming an increasingly important factor to funding agencies and future employers. Many valuable resources for students can be found on its Professional Development site.

Professional Development activities include but are not limited to:
- Attendance at professional development sessions
- Development and maintenance of a CV or resume
- Development of a Research Dossier
- Development of a Teaching Dossier
- Participation in community service and volunteer activities
- Exploring and tracking career opportunities
- Compilation of reference letters or a reference contact list

Students may take advantage of opportunities to develop their teaching skills by participating in the Graduate Teaching and Learning Program.

Students in the Pathologists’ Assistant program will be exempt from the professional development requirement mandated by FGSR.

6.1 DRIvE Days

Our department holds DRIvE (Discovery, Research, InnoVation and Education) annually in conjunction with the Dr. John W. Macgregor Memorial Lecture and the Dr. RE Bell Memorial Lecture. All trainees (graduate and undergraduate students, residents, and postdoctoral fellows) as well as laboratory staff are invited to make either oral or poster presentations. Various prizes are awarded in the Research & Discovery category as well as the Innovation category.

There is an expectation that graduate students will attend (for at least part of the day and the dinner) even if they are not giving an oral or a poster presentation.

6.2 Teaching

The Graduate Teaching and Learning Program is open to all graduate students and Level One may be used to fulfill the non-credit instructional methods course required by the Pathologists’ Assistant program.

Level One is intended to provide an overview of skills and concepts required for teaching at a post-secondary level.
7 PROGRAM COMPLETION

7.1 Program Completion Procedures

Convocation information and deadlines are posted on the FGSR website.

The following are to be completed before the graduate student convocation deadlines:

- The student must apply to graduate in Bear Tracks.
  All applications for graduation are subject to review and approval by the Faculty of Graduate Studies and Research. Applying to graduate on Bear Tracks does not guarantee convocation
- The LMP Graduate Program Office will submit the Report of Completion of Course-based Master's Degree to FGSR.
- The student must pay all outstanding fees. Parchments and other official documentation will not be released to students with outstanding accounts.

Students are encouraged to attend the Convocation ceremony held in their honour. The student’s degree is conferred at this ceremony. The parchment (the official documentation of the student’s academic credential containing the student’s name, degree/specialization and academic honors if applicable) is given at this time. Students unable to attend Convocation may pick up their parchment in person during specified dates following the ceremony; if it is not picked up, it will be mailed to the current address on the student record.