



Boston University School of Medicine
Division of Graduate Medical Sciences



MASTER OF SCIENCE IN PATHOLOGY LABORATORY SCIENCES



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Program Overview

The 32-credit M.S. in Pathology Laboratory Sciences program will prepare you to successfully design, perform, and evaluate research in basic science, biotechnology and other biomedical laboratories. You will learn to prepare and evaluate animal or human cells and tissues for the effects of test compounds, devices, or procedures using morphologic methods. This is a great program for those who want to help advance biomedical knowledge to improve patient care.

Master Common Research Techniques

Techniques include gross, microscopic, and ultrastructural examination of cells and tissues, including histochemical staining, immunohistochemical and immunofluorescence methods for examination of blood and tissue fluids or their extracts. In addition, students have the opportunity to learn one or more specialized techniques including laser capture microdissection, *in situ* hybridization including fluorescence detection (FISH) and confocal or electron microscopy and image analysis.

“Our students come from a diverse background of experiences and nationalities. We offer a high quality graduate-level education in a supportive environment. All our students have gone on to tertiary level programs (Medical or Graduate School) or are employed as Lab Managers or Senior Level technical staff.

– Chris Andry,
MPhil, PhD, Vice Chair for
Operations and Management,
Department of Pathology
and Laboratory Medicine

Program Highlights

- Learn how to use morphologic, biochemical and molecular methods to conduct research on human and animal biospecimens
- Understand how to dissect, document, preserve, process and archive biospecimens
- Work in state of the art laboratories (BSL-2 laboratory environments)
- Develop hypotheses and perform assays to generate experimental results
- Choose a mentor and lab at which to complete a research thesis
- 8-semester program can be completed in two years
- Courses taught by world-class faculty from the Boston University School of Medicine
- Department has 150 year history of graduate-level education
- Supportive environment with available program advisors and tutors to support each student's success
- The degree is awarded by the Division of Graduate Medical Sciences at Boston University School of Medicine



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CURRICULUM

REQUIRED COURSES

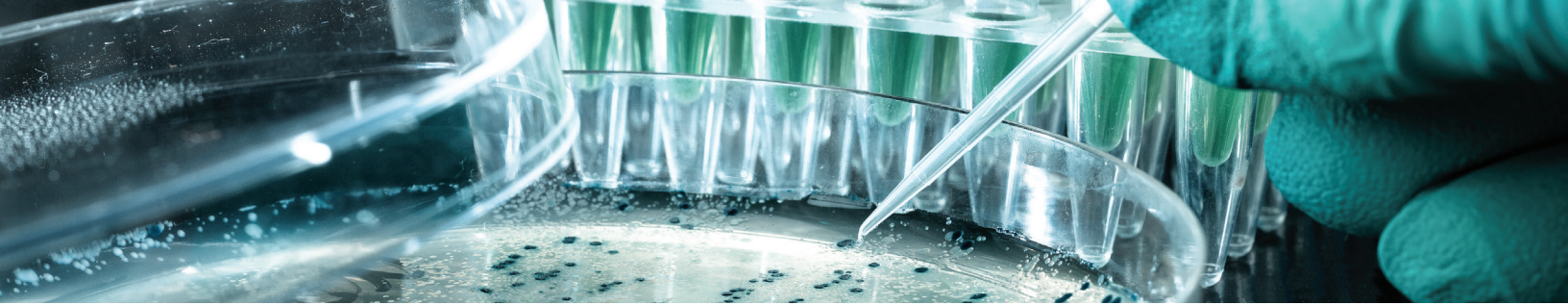
SEMESTER

CREDITS

Principles of Basic And Applied Pathology	Fall	2
Pathology Seminar	Fall	2
Seminar in the Business of Science	Fall	4
Biochemistry	Fall	6
Biostatistics	Fall	2
Pathology Lab Rotations	Fall & Spring	2
Pathology Research	Fall & Spring	Varies
Medical Immunology	Spring	2
Pathology Basic and Experimental Pathology	Spring	4
Special Topics in Pathology Human Biospecimens for Research*	Spring	2
	Spring (every other year)	2

Note: Histology and Molecular Biology courses are highly recommended by not mandatory.

**Optional*



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Application Requirements

- A Bachelor's degree (or higher) from a recognized college or university
- High GPA in courses in chemistry, biology, physics and calculus
- Graduate Record Examination (GRE) scores and TOEFL scores if English is not your native language (600 is the minimum accepted TOEFL score). MCAT scores may be substituted for GRE scores
- Written Personal Statement
- To apply to the program, please visit bu.edu/gms and click on Admissions

Tuition, Financial Aid and Student Resources

For the most up to date information tuition and fees, please visit www.bumc.bu.edu/gms/students/financing-options. The Financial Aid Office at Boston University of Medicine is available to assist students in identifying sources of financial support.

The BU office of Housing Resources provides information regarding housing, transportation, and Boston neighborhoods. For more details, please visit bumc.bu.edu/ohr.

For more information about the Pathology Laboratory Sciences program please contact:

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<http://www.bumc.bu.edu/busm-pathology/graduate-program/master-of-science/>