

# PUBLIC HEALTH

The **Master of Public Health (MPH)** program is a five-semester professional degree with concentration in epidemiology, environmental public health, infectious diseases, and zoonotic, foodborne and waterborne diseases. This program is of interest to individuals holding an undergraduate degree in science or applied science seeking a career in public health.

The objective of the MPH program is to prepare students for careers in public health. The curriculum is based on the core competencies for public health in Canada. Required courses prepare students in all aspects of public health practice. Additional elective courses provide students with the opportunity to develop added strength in specific areas, namely epidemiology, environmental public health, infectious disease, and zoonotic, foodborne, and water-borne diseases. Courses incorporate case-based material and community-engaged exercises to provide students with the opportunity to use a variety of problem-solving and communication skills. Further information can be found at the MPH program website (<http://www.ovc.uoguelph.ca/mp/>).

The program also offers a combined degree pathway between the Doctor of Veterinary Medicine and Master of Public Health programs at the University of Guelph. The **DVM/MPH Combined Degree Program** enables completion of both degrees in five years rather than the six it would take to acquire them independently. This combination builds on the One Health focus in the DVM curriculum, introduces veterinary students to public health practice and associated opportunities earlier in their academic careers, and ultimately serves as a first step towards better integration of public health and veterinary training. Questions regarding this combined degree should be directed to the Graduate Program Coordinator (DVM/MPH).

A **Graduate Diploma** is also offered for those individuals with public health-related experience that wish to increase their knowledge or acquire focused learning.

## Administrative Staff

### Graduate Program Coordinator (MPH and Graduate Diploma)

Andrew Papadopoulos (212 Population Medicine Building, Ext. 53894)  
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### Graduate Program Coordinator (DVM/MPH)

Jane Parmley (2524 Stewart Building, Ext. 54595)  
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### Graduate Program Assistant

Kaite Brown (2509 Stewart Building, Ext. 54005)  
mphinfo@uoguelph.ca

## Graduate Faculty

*This list may include Regular Graduate Faculty, Associated Graduate Faculty and/or Graduate Faculty from other universities.*

### Cathy A. Bauman

DVM, MPH, PhD Guelph - Assistant Professor  
Graduate Faculty

### Olaf Berke

Dipl. Statistics, PhD Dortmund Germany - Associate Professor  
Graduate Faculty

### Katie M. Clow

B.Sc., DVM, PhD Guelph - Assistant Professor

Graduate Faculty

### Catherine E. Dewey

DVM, M.Sc., PhD Guelph - Professor  
Graduate Faculty

### Lauren Grant

B.Sc., M.Sc. McMaster, PhD Guelph - Assistant Professor  
Graduate Faculty

### Amy L. Greer

B.Sc., Mount Allison, M.Sc., Trent, PhD Arizona State - Associate Professor  
Graduate Faculty

### Claire Jardine

B.Sc. Guelph, M.Sc. British Columbia, DVM, PhD Saskatchewan - Associate Professor  
Graduate Faculty

### Andria Q. Jones-Bitton

DVM, PhD Guelph - Associate Professor  
Graduate Faculty

### Jennifer E. McWhirter

B.Sc., PhD Waterloo - Assistant Professor  
Graduate Faculty

### Andrew Papadopoulos

B.A.Sc. Ryerson, MBA York, PhD Guelph - Professor  
Graduate Faculty

### Jane Parmley

DVM Saskatchewan, PhD Guelph - Associate Professor  
Graduate Faculty

### David L. Pearl

B.Sc. McGill, M.Sc. York, DVM, PhD Guelph - Associate Professor  
Graduate Faculty

### Zvonimir Poljak

DVM Croatia, M.Sc., PhD Guelph - Associate Professor  
Graduate Faculty

### Anita L. Tucker

B.Sc., M.Sc., PhD Guelph - Assistant Professor  
Graduate Faculty

### Jeffrey Wichtel

B.V.Sc., PhD Massey - Professor and Dean, Ontario Veterinary College  
Graduate Faculty

## MPH Program

### Admission Requirements

Eligible applicants include those with an honours BSc in Biomedical Sciences, Biological Sciences or Public Health, or those with a DVM, BScN or MD professional degrees (or their equivalent). Students with an honours degree without a biological or health focus will be required to complete the distance education BSc course PATH\*3610 Principles of Disease by the conclusion of the first semester of their degree program. Candidates should have earned a B+ average in their honours BSc degree or at least a B- average in a professional degree (e.g., BScN, DVM, or MD). All applicants will submit a one-page statement of interest including career goals in public health. Students will be admitted into the Fall

semester. Additional information can be found on the MPH program website (<https://ovc.uoguelph.ca/mph/prospective-students/>).

## Program Requirements

The MPH program at the Ontario Veterinary College will typically consist of five consecutive semesters of full-time study. Full-time students will take three semester-length courses for four semesters (total 12 courses), the Public Health Capstone course and a 12 to 16-week practicum in a public health practice setting. Students will begin their program in September. Students can complete the program in four semesters if they choose by adding one additional elective to their course load during each of the Fall and Winter first-year and Fall second-year semesters (four courses per academic semester).

Students will complete at least six (0.50 credit) courses before they begin their practicum placement. The practicum will provide an opportunity to add function to the knowledge base achieved during the didactic portion of the program. A poster and public presentation developed from data gathered during the practicum will illustrate the cumulative experience during the Public Health Capstone course. This is an in person program as core courses and many electives are not offered through distance education. Students may enroll part-time while they continue to work in their public health or regulatory careers. Part-time students will normally take one or two courses per semester. Please note that since this is a non-thesis based degree, applicants are not required to obtain an advisor prior to applying. An advisor will be assigned once students have been admitted into the program.

## Advising

The student's program is established and progress kept under review by the Department of Population Medicine. The day-to-day responsibility will rest with the Graduate Program Coordinator, Master of Public Health program. There will be an Advisory Committee of at least two graduate faculty members, the chair of which will be the Graduate Program Coordinator, Master of Public Health program. The Advisory Committee must be established and the Advisory Committee Appointment form submitted to the Office of Graduate and Postdoctoral Studies not later than the 20th class day of the student's second registered semester.

## DVM/MPH Combined Degree Program

### Admission Requirements

Prospective DVM/MPH students must meet the admission requirements of both individual programs. Applicants must have previously applied to and currently be registered in the Doctor of Veterinary Medicine (DVM) program to be considered for the DVM/MPH.

DVM students may apply to the DVM/MPH combined degree program in their third or fourth year of the DVM program. Eligible applicants who began the DVM program prior to completing an honours BSc (in Biomedical Sciences, Biological Sciences, Public Health), BScN, or MD (or their equivalent), if admitted, will receive an offer conditional upon completion of the DVM. Candidates should have earned a B+ average in their honours BSc degree or at least a B- average in a professional degree (e.g., BScN, DVM, or MD). Additionally, applicants must complete the One Health module as part of Health Management III in Phase 3 of the DVM program. All applicants must submit a one-page statement of interest including career goals at the intersection of veterinary and public health.

Students will be admitted into the Fall semester. Additional information can be found on the OVC website (<https://ovc.uoguelph.ca/mph/prospective-students/>).

Please note that since this is a non-thesis-based degree, applicants are not required to obtain an advisor prior to applying. One will be assigned once students have been admitted into the program.

## Program Requirements

The MPH portion of the DVM/MPH combined degree program consists of 5.00 credits of work, typically completed over three consecutive semesters of full-time study. Only the required courses are necessary for this combined degree. No elective courses are required.

Combined DVM/MPH students will complete the Public Health Capstone course during their first MPH semester where they will reflect and present on the how their DVM training aligns with and complements the field of public health, a One Health project the student was involved with, or on their experience during a public health-related externship.

Students will complete their practicum placement in their third semester. The Public Health Practicum will provide an opportunity to add function to the knowledge base achieved during the didactic portion of the program.

## Advising

The student's program is established and progress kept under review by the Department of Population Medicine. The day-to-day responsibility will rest with the Graduate Program Coordinator, DVM/MPH combined degree program. There will be an Advisory Committee of at least two graduate faculty members, the chair of which will be the Graduate Program Coordinator, DVM/MPH combined degree program. The Advisory Committee must be established and the Advisory Committee Appointment form submitted to the Office of Graduate and Postdoctoral Studies not later than the 20th class day of the student's second MPH semester.

## Graduate Diploma

### Admission Requirements

Eligible applicants include those with an honours BSc in Biomedical Sciences, Biological Sciences, or Public Health, or those with a DVM, BScN or MD professional degrees (or their equivalent). Students with an honours degree without a biological or health focus will be required to complete the distance education BSc course PATH\*3610 Principles of Disease by the conclusion of the first semester of their degree program. Candidates should have earned a B average in an honours degree or in a professional degree. All applicants should submit a one-page statement of interest and career goals in public health. Students will be admitted into the Fall semester. Additional information can be found on the MPH program website (<https://ovc.uoguelph.ca/mph/prospective-students/>).

## Program Requirements

This stand-alone graduate diploma program at the Ontario Veterinary College consists of four courses, including Applied Public Health Research, at least two required courses, and one elective course. Typical duration of the Graduate Diploma program is two semesters.

Students may request a transfer from the Graduate Diploma into the MPH and, if accepted, will receive credit for the courses taken. Students interested in this option must apply to the MPH program prior to initiating graduation procedures from the Graduate Diploma.

## Collaborative Specializations International Development Studies

The MPH program participates in the collaborative specialization in International Development Studies (IDS). Students in this option must register in the MPH program and IDS. Those faculty members whose research and teaching expertise includes aspects of international development studies may serve as advisors for MPH students. Please consult the International Development Studies ([calendar.uoguelph.ca/graduate-calendar/collaborative-specializations/international-development-studies/](http://calendar.uoguelph.ca/graduate-calendar/collaborative-specializations/international-development-studies/)) listing for a detailed description of the MPH collaborative specialization and the special additional requirements for each of the participating departments.

## Courses

### POPM\*6100 Seminar Fall Only [0.00]

A practical course that utilizes tutorials, workshops, self and peer reviewed assessment to help participants develop skills in public speaking and presentation of scientific data. Each student presents at least one seminar on an approved subject during the departmental seminar series.

**Offering(s):** Annually

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

### POPM\*6200 Epidemiology I Fall Only [0.50]

This course covers concepts, principles and methods of basic and applied epidemiology, including the following topics: sampling, measuring disease frequency, clinical epidemiology, descriptive epidemiology, causal reasoning and design, interpretation and critical appraisal of surveys, observational studies, field trials, and critical appraisal.

**Offering(s):** Annually. Also offered through Distance Education format.

**Restriction(s):** Restricted to Public Health and Population Medicine students.

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

### POPM\*6210 Epidemiology II Winter Only [0.50]

Advanced study design and analytic methods for the analysis of data from observational studies and surveys.

**Offering(s):** Annually

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

### POPM\*6230 Applied Clinical Research Winter Only [0.50]

This course is designed to help clinical researchers design, fund, and analyze their clinical research. Emphasis is placed upon planning a well-designed clinical trial and writing a well-organized grant proposal.

**Offering(s):** Annually

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

### POPM\*6250 Project in Population Medicine Summer, Fall, and Winter [1.00]

Collection and analysis of field data and the preparation of a written report suitable for publication, and oral presentation of the findings to the graduate faculty. This course is part of the MSc program by course work in population medicine.

**Offering(s):** Annually

**Restriction(s):** Restricted to Population Medicine MSc coursework/MRP students

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

### POPM\*6260 Placement in Epidemiology Summer Only [1.00]

In this one-semester course, students apply skills and integrate knowledge gained via coursework in a workplace setting by actively conducting and managing clinical trial research. Over a 12- to 16-week period, students work at an academic institute, human or veterinary hospital, government organization or company routinely conducting clinical trial research. The course culminates in the completion of a major research project.

**Offering(s):** Annually

**Restriction(s):** Instructor consent required.

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

### POPM\*6290 Epidemiology III Fall Only [0.50]

This course gives an overview of advanced methods for the analysis of data of clustered/correlated data as opposed to independent data. Special emphasis is on spatial, longitudinal, survival, and time series data.

**Offering(s):** Annually

**Prerequisite(s):** POPM\*6210

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

### POPM\*6350 Safety of Foods of Animal Origins Fall Only [0.50]

The detection, epidemiology, human health risk, and control of hazards in food of animal origin.

**Offering(s):** Offered through Distance Education format only.

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

### POPM\*6400 Dairy Health Management Summer Only [0.50]

This course stresses a population-based, herd-level approach to dairy herd health management, in which optimizing the efficiency of the dairy enterprise is the overall goal. The biological and economic impacts of disease and management deficiencies on herd performance will be discussed as they relate to design and implementation of herd health programs. The course will emphasize the critical role of record keeping, data analysis and monitoring on program success.

**Offering(s):** Even-numbered years

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

### POPM\*6510 Health Promotion Winter Only [0.50]

This course introduces students to health promotion and health behaviour theory and practice. Example topics include: social determinants of health, health promotion theories, health behaviour change, campaign planning, and social marketing. Students will apply their knowledge by creating a public health promotion campaign.

**Offering(s):** Annually

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

### POPM\*6520 Introduction to Epidemiological and Statistical Methods Fall Only [0.50]

This is a 0.5 credit introductory graduate course for MPH students and students interested in epidemiology. The course will provide an introduction to research design, grant proposal writing, and critical appraisal, as well as survey (questionnaire) design and basic statistical methods for epidemiological studies.

**Offering(s):** Annually

**Co-requisite(s):** POPM\*6200

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6530 Health Communication Fall Only [0.50]**

This course introduces communication theory, best practices, and skills related to public health. Students will learn about the written, oral, and visual communication of health information for professional, peer, and lay audiences. Students will apply their knowledge by creating a portfolio of health communication materials.

**Offering(s):** Annually

**Restriction(s):** Restricted to Public Health students.

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6540 Concepts in Environmental Public Health Winter Only [0.50]**

This course covers the main concepts of environmental public health including basic elements of environmental toxicology, risk analysis, air and water quality, food safety, waste, occupational health and eco health.

**Offering(s):** Annually

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6550 Public Health Policy and Systems Winter Only [0.50]**

This course covers concepts and principles of public health policy and systems including: public health systems, their structure, funding and governance and their integration into the healthcare system; evolution of public health policy; models of policy development and analysis; stakeholder analysis; and, public health ethics.

**Offering(s):** Annually

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6560 Public Health Practicum Unspecified [1.00]**

In this 1.0 credit course, students will synthesize theoretical concepts, learned via prior coursework, with public health practice. Students will work in a host public health agency for a 12-to 16-week period, focusing on a major project of significance to the host organization.

**Offering(s):** Annually

**Prerequisite(s):** POPM\*6200, POPM\*6510, POPM\*6520, POPM\*6530, POPM\*6540, and POPM\*6550

**Restriction(s):** Restricted to Public Health students.

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6570 Public Health Capstone Fall Only [0.00]**

This course serves as a capstone for students in the Master of Public Health program to reflect on, interpret, and present their practicum work in a variety of formats, including public presentation, to enhance their communication skills and abilities.

**Offering(s):** Annually

**Prerequisite(s):** POPM\*6560

**Restriction(s):** Restricted to Public Health students.

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6580 Public Health Leadership and Administration Fall Only [0.50]**

This course will teach students to develop, implement and improve public health programs. Understanding an organization's mission and priorities, and developing business plans is critical for an effective administrator.

Furthermore, it introduces theories and effective components of leadership and describes the practical role of the leader.

**Offering(s):** Annually

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6590 Public Health Practicum II Winter Only [1.00]**

This course allows students in the Master of Public Health program to undertake an optional second practicum experience. They will work in a host public health organization or agency for a 12- to 16-week period, focusing on a major project of significance to the host organization.

**Offering(s):** Annually

**Prerequisite(s):** POPM\*6560

**Restriction(s):** Restricted to Public Health students.

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6600 Applied Public Health Research Summer, Fall, and Winter [0.50]**

Students will undertake a supervised research project on a public health issue or problem. The project will involve analysis and interpretation of public health information and the findings will be presented in a written report.

**Offering(s):** Annually

**Prerequisite(s):** POPM\*6560

**Restriction(s):** Restricted to Public Health students.

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6610 Theriogenology of Cattle Unspecified [0.50]**

A lecture/seminar course emphasizing the relationship of nutritional, genetic, endocrine, anatomic, and environmental factors with the reproductive health of cattle. Application of reproductive technologies will also be covered.

**Offering(s):** Occasional years

**Restriction(s):** Restricted to DVSc students.

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6630 Theriogenology of Horses Unspecified [0.50]**

A lecture/seminar course covering the genetic, endocrine, anatomic and environmental factors that affect reproductive performance and health of horses. Breeding management, including recent technologies, and management of the infertile animal will be included.

**Offering(s):** Occasional years

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6650 Theriogenology of Dogs and Cats Unspecified [0.50]**

A seminar/lecture series that includes the theory and management of clinical reproduction for the dog and cat, including use of developing technologies.

**Offering(s):** Occasional years

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6670 Theriogenology of Small Ruminants Unspecified [0.50]**

A seminar/laboratory course emphasizing advanced reproductive management of sheep, goats and farmed deer/elk, with the emphasis on a sheep production model. New reproductive technologies will be included.

**Offering(s):** Occasional years

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6700 Swine Health Management Unspecified [0.50]**

Diseases of swine are studied with particular emphasis on preventive medicine and herd-health management.

**Offering(s):** Even-numbered years

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6800 Infectious Disease Modeling Winter Only [0.50]**

This course serves as a basic introduction to mathematical modeling of infectious diseases using examples from public and veterinary health. Students completing this course will have the ability to critically appraise published mathematical models, and to build, parameterize, and analyze simple compartmental models.

**Offering(s):** Annually

**Prerequisite(s):** POPM\*6200

**Restriction(s):** Instructor consent required.

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6950 Directed Studies in Population Medicine Unspecified [0.50]**

Assigned reading and/or special projects selected to provide in-depth study of topics appropriate to the specialized interests of individual students. Courses offered under this title have included Special Topics in Public Health; Ecology and Health; Systems Approaches; and Animal Welfare. Different offerings are assigned different section numbers.

**Offering(s):** Annually

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**POPM\*6960 Systematic Reviews and Meta-Analysis Winter Only [0.50]**

This course covers the use of systematic reviews in animal and public health, the steps in conducting a systematic review, and quantitative synthesis of research results from multiple studies (meta-analysis). The course combines didactic lectures and videos with practical exercises during class time.

**Offering(s):** Annually

**Prerequisite(s):** POPM\*6200 and POPM\*6520

**Department(s):** Department of Population Medicine

**Location(s):** Guelph

**Electives**

Four electives (or 2.0 credits) are required. Choose at least two electives (or 1.0 credits) from the following list. The remaining courses may also be selected from this list or from those listed elsewhere in the Graduate Calendar. Students taking Public Health Practicum II (1.0 credit) are required to take only two additional 0.5 credit elective courses. The Graduate Program Coordinator, Master of Public Health program must approve all electives in advance.

<b>Code</b>	<b>Title</b>	<b>Credits</b>
EDRD*6100	Disaster Planning and Management	0.50
EDRD*6690	Program Evaluation	0.50
ONEH*6000	One Health Approaches to Research	0.50
ONEH*6100	Master's Seminar in One Health	0.50
PABI*6550	Epidemiology of Zoonoses	0.50
POPM*6210	Epidemiology II	0.50
POPM*6290	Epidemiology III	0.50
POPM*6350	Safety of Foods of Animal Origins	0.50
POPM*6590	Public Health Practicum II	1.00
POPM*6600	Applied Public Health Research	0.50
POPM*6800	Infectious Disease Modeling	0.50
POPM*6950	Directed Studies in Population Medicine	0.50
POPM*6960	Systematic Reviews and Meta-Analysis	0.50