2018-2019 Graduate Calendar

The information published in this Graduate Calendar outlines the rules, regulations, curricula, programs and fees for the 2018-2019 academic year, including the Summer Semester 2018, Fall Semester 2018 and the Winter Semester 2019.

For your convenience the Graduate Calendar is available in PDF format.

If you wish to link to the Graduate Calendar please refer to the Linking Guidelines.

The University is a full member of:

- Universities of Canada

Contact Information:

University of Guelph
Guelph, Ontario, Canada
N1G 2W1
519-824-4120

Revision Information:

<table>
<thead>
<tr>
<th>Date</th>
<th>Description</th>
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<tr>
<td>May 1, 2018</td>
<td>Initial Publication</td>
</tr>
<tr>
<td>August 10, 2018</td>
<td>Revision 1</td>
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<tr>
<td>December 13, 2018</td>
<td>Revision 2</td>
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<tr>
<td>February 15, 2019</td>
<td>Revision 3</td>
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<td>March 1, 2019</td>
<td>Revision 4</td>
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Disclaimer
The Office of Graduate Studies has attempted to ensure the accuracy of this on-line Graduate Calendar. However, the publication of information in this document does not bind the university to the provision of courses, programs, schedules of studies, fees, or facilities as listed herein.

Limitations
The University of Guelph reserves the right to change without notice any information contained in this calendar, including any rule or regulation pertaining to the standards for admission to, the requirements for the continuation of study in, and the requirements for the granting of degrees or diplomas in any or all of its programs.

The university will not be liable for any interruption in, or cancellation of, any academic activities as set forth in this calendar and related information where such interruption is caused by fire, strike, lock-out, inability to procure materials or trades, restrictive laws or governmental regulations, actions taken by the faculty, staff or students of the university or by others, civil unrest or disobedience, Public Health Emergencies, or any other cause of any kind beyond the reasonable control of the university.

The University of Guelph reaffirms section 1 of the Ontario Human Rights Code, 1981, which prohibits discrimination on the grounds of race, ancestry, place of origin, colour, ethnic origin, citizenship, creed, sex, sexual orientation, handicap, age, marital status or family status.

The university encourages applications from women, aboriginal peoples, visible minorities, persons with disabilities, and members of other under-represented groups.
Introduction

Collection, Use and Disclosure of Personal Information

Personal information is collected under the authority of the University of Guelph Act (1964), and in accordance with Ontario's Freedom of Information and Protection of Privacy Act (FIPPA) http://www.e-laws.gov.on.ca/DBLaws/Statutes/English/90f31_e.htm. This information is used by University officials in order to carry out their authorized academic and administrative responsibilities and also to establish a relationship for alumni and development purposes. Certain personal information is disclosed to external agencies, including the Ontario Universities Application Centre, the Ministry of Advanced Education and Skills Development, and Statistics Canada, for statistical and planning purposes, and is disclosed to other individuals or organizations in accordance with the Office of Registrarial Services Departmental Policy on the Release of Student Information. For details on the use and disclosure of this information call the Office of Registrarial Services at the University at (519) 824-4120 or see https://www.uoguelph.ca/registrar/.

Statistics Canada - Notification of Disclosure

For further information, please see Statistics Canada's web site at http://www.statcan.gc.ca and Section XIV Statistics Canada.

Address for University Communication

Depending on the nature and timing of the communication, the University may use one of these addresses to communicate with students. Students are, therefore, responsible for checking all of the following on a regular basis:

Email Address
The University issued email address is considered an official means of communication with the student and will be used for correspondence from the University. Students are responsible for monitoring their University-issued email account regularly.

Home Address
Students are responsible for maintaining a current mailing address with the University. Address changes can be made, in writing, through Registrarial Services.

Name Changes

The University of Guelph is committed to the integrity of its student records, therefore, each student is required to provide either on application for admission or on personal data forms required for registration, his/her complete, legal name. Any requests to change a name, by means of alteration, deletion, substitution or addition, must be accompanied by appropriate supporting documentation.

Student Confidentiality and Release of Student Information Policy Excerpt

The University undertakes to protect the privacy of each student and the confidentiality of his or her record. To this end the University shall refuse to disclose personal information to any person other than the individual to whom the information relates where disclosure would constitute an unjustified invasion of the personal privacy of that person or of any other individual. All members of the University community must respect the confidential nature of the student information which they acquire in the course of their work.

Complete policy at https://www.uoguelph.ca/secretariat/office-services/university-secretariat/university-policies.
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The interdepartmental program is the focal point for graduate teaching and research in food safety and quality assurance. The MSc program in food safety and quality assurance is intended to prepare food scientists, food engineers, veterinarians and others with appropriate scientific backgrounds for participation in food safety monitoring and maintenance in the food industry and in government. Students wishing to undertake graduate studies at the MSc level with emphasis on food safety and quality assurance will enter the program through a participating department. The participating academic units are Biomedical Sciences, Marketing and Consumer Studies, Environmental Biology, Food Science, Pathobiology, Population Medicine, and Engineering.

**Administrative Staff**

**Chair**
Art Hill (112 Food Science, Ext. 53875)  
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**FSQA Graduate Program Coordinator**
Jeffrey Farber (202 CRIFS, Ext. 56101)  
 jihadist@uoguelph.ca

**Graduate Program Assistant**
Kay Norwell (106 Food Science, Ext. 52183)  
fsqa@uoguelph.ca

**Graduate Faculty**

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
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<tbody>
<tr>
<td>Shai Barbut</td>
<td>Professor, Food Science</td>
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<tr>
<td>Benjamin Bohrer</td>
<td>Professor, Food Science</td>
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<tr>
<td>Lisa Duizer</td>
<td>Associate Professor, Food Science</td>
</tr>
<tr>
<td>Jeffrey Farber</td>
<td>Professor, Food Science</td>
</tr>
<tr>
<td>H. Douglas Goff</td>
<td>Professor, Food Science</td>
</tr>
<tr>
<td>Arthur R. Hill</td>
<td>Professor and Chair, Food Science</td>
</tr>
<tr>
<td>Iris Joye</td>
<td>Professor, Food Science</td>
</tr>
<tr>
<td>Gisele LaPointe</td>
<td>Professor, Food Science</td>
</tr>
<tr>
<td>Loong-Tak Lim</td>
<td>Associate Professor, Food Science</td>
</tr>
<tr>
<td>Alejandro G. Marangoni</td>
<td>Professor, Food Science</td>
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<tr>
<td>Massimo Marcone</td>
<td>Professor, Food Science</td>
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<tr>
<td>Scott A. McEwen</td>
<td>Professor, Population Medicine</td>
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<tr>
<td>Don Mercer</td>
<td>Professor, Food Science</td>
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<tr>
<td>Yoshinori Mine</td>
<td>Professor, Food Science</td>
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<tr>
<td>Andrew Papadopoulos</td>
<td>Associate Professor, Population Medicine</td>
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<tr>
<td>Michael Rogers</td>
<td>Associate Professor, Food Science</td>
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<tr>
<td>Paul Spagnuolo</td>
<td>Professor, Food Science</td>
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<tr>
<td>Keith Warriner</td>
<td>Professor, Food Science</td>
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**Associated Graduate Faculty**

<table>
<thead>
<tr>
<th>Name</th>
<th>Department</th>
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<tbody>
<tr>
<td>Mansel Griffiths</td>
<td>Food Science</td>
</tr>
<tr>
<td>Anne Wileck</td>
<td>Food Science</td>
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</tbody>
</table>

**MSc Program**

**Admission Requirements**

The program is most suitable for those with an undergraduate science background or for those currently employed in the food area in government regulatory work or in the processing industry who desire upgrading of skills and knowledge. Applicants for admission to this program must meet the university minimum admission requirement of a baccalaureate in an honour's program (or the equivalent) or a DVM from a recognized university or college with an average standing of at least a 'B'-average. Applicants will be expected to have completed undergraduate courses that prepare them for participation in the core graduate courses and electives of the program. Undergraduate upgrading may be necessary to ensure sufficient background in topics such as microbiology, toxicology, statistics, and analytical methods.

**Degree Requirements**

Completion of the MSc FSQA program requires a minimum of eight courses (or 4.5 credits) acceptable to graduate credit. This includes the seminar course which has a value of 0.5 credit. All students must complete:

- FSQA*6000 [0.50] Food Safety and Quality Assurance Seminar
- FSQA*6500 [1.00] Food Safety and Quality Assurance Research Project

This project is equal to 1.0 credit and counts as one course of the eight required courses.

- FSQA*6600 [0.50] Principles of Food Safety and Quality Assurance
- FSQA*6150 [0.50] Food Quality Assurance Management

At least four additional courses, in consultation with the student's advisory committee. Suitable courses are listed below. Other courses, not listed here, also may be considered. Up to two senior undergraduate courses can be taken. The courses selected will depend upon the student's background, specialty, interest and area of project research. The normal duration of the program will be three to four full-time semesters.

**Graduate Diploma**

**Admission Requirements**

The program is most suitable for those with an undergraduate science background or for those currently employed in the food area in government regulatory work or in the processing industry who desire upgrading of skills and knowledge. Applicants for admission to this program must meet the university minimum admission requirement of a baccalaureate in an honour's program (or the equivalent) or a DVM from a recognized university or college with an average standing of at least a 'B'-average. Applicants will be expected to have completed undergraduate courses that prepare them for participation in the core graduate courses and electives of the program. Undergraduate upgrading may be necessary to ensure sufficient background in topics such as microbiology, toxicology, statistics, and analytical methods.

**Diploma Requirements**

All students must complete the following five courses:

- FSQA*6100 [0.50] Food Law and Policy
- FSQA*6150 [0.50] Food Quality Assurance Management
- FSQA*6200 [0.50] Food Safety Systems Management
- FSQA*6600 [0.50] Principles of Food Safety and Quality Assurance
- POPM*6350 [0.50] Safety of Foods of Animal Origins

**Collaborative Specializations**

- **Toxicology**
  - The MSc in Food Safety and Quality Assurance participates in the collaborative specialization in toxicology. The faculty members' research and teaching expertise includes aspects of toxicology; they may serve as advisors for MSc.
  - Please consult the Toxicology listing for a detailed description of the MSc collaborative specialization.

**Courses**

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
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<tr>
<td>FSQA*6000</td>
<td>Food Safety and Quality Assurance Seminar</td>
<td>[0.50]</td>
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<tr>
<td>FSQA*6100</td>
<td>Food Law and Policy</td>
<td>[0.50]</td>
</tr>
<tr>
<td>FSQA*6150</td>
<td>Food Quality Assurance Management</td>
<td>[0.50]</td>
</tr>
<tr>
<td>FSQA*6200</td>
<td>Food Safety Systems Management</td>
<td>[0.50]</td>
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<tr>
<td>FSQA*6600</td>
<td>Principles of Food Safety and Quality Assurance</td>
<td>[0.50]</td>
</tr>
<tr>
<td>POPM*6350</td>
<td>Safety of Foods of Animal Origins</td>
<td>[0.50]</td>
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FSQA*6150 Food Quality Assurance Management W [0.50]
Examination and review of principles and concept of quality assurance and their application to consumer products and services. Topics include applied aspects of total-quality management principles.

Offering(s): Offered through Distance Education format only.
Department(s): Department of Food Science

FSQA*6200 Food Safety Systems Management W [0.50]
Food safety systems are studied in four modules. (1) A brief review of plant hygiene and HACCP principles. Students with insufficient background will do supplemental study in these areas; (2) HACCP implementation and verification; (3) HACCP-based food safety programs in Canada; and (4) International Food Safety Management Systems.

Offering(s): Offered through Distance Education format only.
Department(s): Department of Food Science

FSQA*6500 Food Safety and Quality Assurance Research Project S,F,W [1.00]
An original research project related to food safety and quality assurance which includes the preparation of a written report suitable for publication and an oral presentation of the findings to the graduate faculty.

Department(s): Department of Food Science

FSQA*6600 Principles of Food Safety and Quality Assurance F [0.50]
An integrated approach to factors affecting food safety and quality including microbial and chemical contamination is provided. Major food-borne disease outbreaks are studied as examples. Modern methods of quality management to minimize contamination of processed foods is discussed.

Offering(s): Offered through Distance Education format only.
Department(s): Department of Food Science

Other Graduate Courses Suitable for Credit in this Program

Food Science
FOOD*6190 [0.50] Advances in Food Science
FOOD*6710 [0.25] Special Topics in Food Chemistry
FOOD*6720 [0.25] Special Topics in Food Microbiology
FOOD*6730 [0.25] Special Topics in Food Physics
FOOD*6740 [0.25] Special Topics in Food Processing
FOOD*6750 [0.25] Special Topics in Food for Health
FOOD*6760 [0.25] Special Topics in Food Quality

Human Heath and Nutritional Sciences
HHNS*6400 [0.50] Functional Foods and Nutraceuticals
HHNS*6410 [1.00] Applied Functional Foods and Nutraceuticals

Pathobiology
PABI*6000 [0.50] Bacterial Pathogenesis
PABI*6550 [0.50] Epidemiology of Zoonoses

Population Medicine
POPM*6200 [0.50] Epidemiology I
POPM*6210 [0.50] Epidemiology II
POPM*6350 [0.50] Safety of Foods of Animal Origins

Plant Agriculture
PLNT*6110 [0.50] Fruit and Vegetable Technology

Undergraduate Courses Suitable for Credit in this Program

Food Science
FOOD*3030 [0.50] Food Chemistry I
FOOD*4120 [0.50] Food Analysis
FOOD*4090 [0.50] Functional Foods and Nutraceuticals

Human Health and Nutritional Sciences
NUTR*4510 [0.50] Toxicological Aspects of Nutrition

Population Medicine
POPM*4040 [0.50] Epidemiology of Food-Borne Diseases