2020-2021 Graduate Calendar

The information published in this Graduate Calendar outlines the rules, regulations, curricula, programs and fees for the 2020-2021 academic year, including the Summer Semester 2020, Fall Semester 2020 and the Winter Semester 2021.

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

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Disclaimer

The information published in this Graduate Calendar outlines the rules, regulations, curricula, programs and fees for the 2020-2021 academic year, including the Summer Semester 2020, the Fall Semester 2020 and the Winter Semester 2021

The University reserves the right to change without notice any information contained in this calendar, including but not limited to that related to tuition and other fees, standards of admission, course delivery or format, continuation of study, and the offering or requirements for the granting of, degrees or diplomas in any or all of its programs. The publication of this calendar does not bind the University to the provision of courses, programs, schedules of study, or facilities as listed herein.

The University will not be liable for any failure or delay in performance arising out of any cause or causes beyond its reasonable control. Such causes may include but are not limited to fire, strike, lock-out, inability to procure materials or trades, war, mass-casualty event, flood, local, regional or global outbreak of disease or other public health emergency, social distancing or quarantine restriction, legislative or regulatory requirements, unusually severe weather, failure of public utility or common carrier, or attacks or other malicious act, including but not limited to attacks on or through the internet, or any internet service, telecommunications provider or hosting facility.

In March 2020 the World Health Organization declared a global pandemic of the virus leading to COVID-19. The Governments of Canada, the Province of Ontario, and local Governments responded to the pandemic with legislative amendments, controls, orders, by-laws, requests and requirements (collectively, the "Governmental Response"). It is uncertain how long the pandemic, and the related Governmental Response, will continue, and it is unknown whether there may be a resurgence of the virus leading to COVID-19 or any mutation thereof (collectively, the "Virus") and resulting or supplementary renewed Government Response. Without limiting the foregoing paragraph, the University shall not be liable for costs associated with any failure or delay in performance arising out of:

a. the continued spread of the Virus;

b. the continuation of or renewed Governmental Response to control the spread of the Virus; and

c. a University decision, made on an organization-wide basis and in good faith, to control the spread of the Virus, even if exceeding the then current specific Government Response.

In particular, the COVID-19 pandemic may necessitate a revision of the format of course offerings such that courses are offered in whole or in part on an alternate delivery model to in-person classes. Tuition and mandatory fees have been set regardless of the method of instruction and will not be refunded in the event instruction occurs remotely for any part of the academic year.

Dates or times of performance including the Schedule of Dates may be extended as appropriate and the University will notify students promptly of the existence and nature of such delay and shall, so far as practicable, use reasonable efforts to minimize and mitigate any such delay or non-performance.

In the event of a discrepancy between a print version (downloaded) and the Web version, the Web version will apply,

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, their 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 their 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 .

Learning Outcomes

Graduate Degree Learning Outcomes

On May 27, 2013, the University of Guelph Senate approved the following five University-wide Learning Outcomes as the basis from which to guide the development of graduate degree programs, specializations and courses:

1. Critical and Creative Thinking
2. Literacy
3. Global Understanding
4. Communication
5. Professional and Ethical Behaviour

These learning outcomes are also intended to serve as a framework through which our educational expectations are clear to students and the broader public; and to inform the process of outcomes assessment through the quality assurance process (regular reviews) of programs and departments.

An on-line guide to the learning outcomes, links to the associated skills, and detailed rubrics designed to support the development and assessment of additional program and discipline-specific outcomes, are available for reference on the Learning Outcomes website

Critical and Creative Thinking

Critical and creative thinking is a concept in which one applies logical principles, after much inquiry and analysis, to solve problems with a high degree of innovation, divergent thinking and risk taking. Those mastering this outcome show evidence of integrating knowledge and applying this knowledge across disciplinary boundaries. Depth and breadth of understanding of disciplines is essential to this outcome. At the graduate level, originality in the application of knowledge (master's) and undertaking of research (doctoral) is expected.

In addition, Critical and Creative Thinking includes, but is not limited to, the following outcomes: Independent Inquiry and Analysis; Problem Solving; Creativity; and Depth and Breadth of Understanding.

Literacy

Literacy is the ability to extract information from a variety of resources, assess the quality and validity of the material, and use it to discover new knowledge. The comfort in using quantitative literacy also exists in this definition, as does using technology effectively and developing visual literacy.

In addition, Literacy includes, but is not limited to, the following outcomes: Information Literacy, Quantitative Literacy, Technological Literacy, and Visual Literacy.

Global Understanding

Global understanding encompasses the knowledge of cultural similarities and differences, the context (historical, geographical, political and environmental) from which these arise, and how they are manifest in modern society. Global understanding is exercised as civic engagement, intercultural competence and the ability to understand an academic discipline outside of the domestic context.

In addition, Global Understanding includes, but is not limited to, the following outcomes: Global Understanding, Sense of Historical Development, Civic Knowledge and Engagement, and Intercultural Competence.

Communication

Communication is the ability to interact effectively with a variety of individuals and groups, and convey information successfully in a variety of formats including oral and written communication. Communication also comprises attentiveness and listening, as well as reading comprehension. It includes the ability to communicate and synthesize information, arguments, and analyses accurately and reliably.

In addition, Communication includes, but is not limited to, the following outcomes: Oral Communication, Written Communication, Reading Comprehension, and Integrative Communication.

Professional and Ethical Behaviour

Professional and ethical behaviour requires the ability to accomplish the tasks at hand with proficient skills in teamwork and leadership, while remembering ethical reasoning behind all decisions. The ability for organizational and time management skills is essential in bringing together all aspects of managing self and others. Academic integrity is central to mastery in this outcome. At the graduate level, intellectual independence is needed for professional and academic development and engagement.

In addition, Professional and Ethical Behaviour includes, but is not limited to, the following outcomes: Teamwork, Ethical Reasoning, Leadership, Personal Organization and Time Management, and Intellectual Independence.

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Food Safety and Quality Assurance

The interdepartmental MSc program is the focal point for graduate teaching and research in food safety and quality assurance. The FSQA program is intended to prepare food scientists, food engineers, microbiologists and others with appropriate scientific backgrounds for participation in food safety monitoring and management in the food industry and in government food regulatory roles. Students wishing to undertake graduate studies at the MSc level with an emphasis on food safety and quality assurance will be working on a project with an approved advisor.

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Keith Warriner
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MSc Program

Admission Requirements

The program is most suitable for those with an undergraduate degree in food science or microbiology and for those currently employed in the food safety and quality assurance fields in government regulatory work or in the food industry who desire upgrading of skills and knowledge. Applicants for admission to this program must meet the admission requirement of a baccalaureate in an honours program (or the equivalent) in a relevant field of study from a recognized university or college with an average standing of at least a 'B' average.

Prospective students indicate whether they wish to complete the program in "Hybrid Delivery" (on-campus and online learning) or "Distance Delivery" (fully online) mode at the time of application.

"Distance Delivery" applicants are required to submit an additional (third) letter of support from an individual (such as a supervisor and/or manager) in an organization indicating a willingness to oversee the applicant's workplace project, should they be accepted to the program.

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 prior to applying may be necessary to ensure sufficient background in topics such as microbiology, toxicology, statistics, and analytical methods.

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.

Program Requirements

Completion of the MSc FSQA program requires a minimum of seven courses (or 4.0 credits) acceptable for graduate credit.

Hybrid Delivery

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, equal to 1.00 credit, is one of the seven courses required to complete the program.

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

At least three additional courses.

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 is three to four full-time semesters.

Distance Delivery

Students must complete:

FSQA*6150	[0.50]	Food Quality Assurance Management
FSQA*6400	[1.00]	Workplace Project in Food Safety
FSQA*6600	[0.50]	Principles of Food Safety and Quality Assurance

At least four additional courses by distance education.

The normal duration of the program is three full-time semesters.

Graduate Diploma

Admission Requirements

The program is most suitable for those with an undergraduate food science or microbiology background and for those currently employed in food safety and quality assurance fields in government food regulatory work or in the food industry who desire upgrading of skills and knowledge. Applicants for admission to this program must meet the admission requirement of a baccalaureate in an honours program (or the equivalent) in a relevant field of study 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.

Program 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 masters collaborative specialization.

Courses

FSQA*6000 Food Safety and Quality Assurance Seminar F [0.50]

Provides experiential training in forms of communication that are likely to be required in professional or academic careers in food science and technology.

Restriction(s): This course is open only to students in the MSc FSQA program.
Department(s): Department of Food Science

FSQA*6100 Food Law and Policy F [0.50]

The fundamentals of food policy development and Canadian and international food law are learned and practiced through online presentations, independent study and online interactions with other students and industry professionals.

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

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*6300 Leadership in Food Safety F [0.50]

This course prepares students for food safety leadership roles in the global food industry by developing core problem-solving, management, and communication competencies. Students are exposed to industry based and governmental based food safety leadership initiatives at both the regional and international levels.

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

FSQA*6400 Workplace Project in Food Safety W-S [1.00]

A major project of relevance to a host employer related to food safety and quality assurance, which includes the preparation of a written and an oral presentation to the graduate faculty.

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

Food, Agricultural and Resource Economics

FARE*6130	[0.50]	Operations Management in the Agri-Food Sector

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*4190	[0.50]	Advanced 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