

# 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

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UNIVERSITY  
of GUELPH

CHANGING LIVES  
IMPROVING LIFE

## **Disclaimer**

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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**

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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**

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### **Collection, Use and Disclosure of Personal Information**

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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](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**

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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**

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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**

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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**

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

### **Name Changes**

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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**

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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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## Computational Sciences

The School of Computer Science (SoCS) offers an Interdisciplinary PhD degree in Computational Sciences that encompasses multiple Departments/Schools across the University of Guelph. The program provides a unique opportunity for students to study computing within the context of another discipline commensurate with their interests and career goals. Students entering this PhD program perform research that bridges Computer Science with at least one other discipline such as Economics and Finance, Engineering, English and Theatre Studies, Geography, History, Integrative Biology, Mathematics and Statistics, Pathobiology, Population Medicine and Psychology.

### Administrative Staff

#### Director

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#### Associate Graduate Director

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#### Graduate Program Assistant

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### Graduate Faculty

#### From the School of Computer Science

##### Luiza Antonie

BSc Bucharest, MSc, PhD Alberta - Assistant Professor

##### David A. Calvert

BA, MSc Guelph, PhD Waterloo - Associate Professor

##### David K.Y. Chiu

BA Waterloo, BSc Guelph, MSc Queen's, PhD Waterloo - Professor

##### Rozita Dara

BSc Shahid Teheshti, MSc Guelph, PhD Waterloo - Assistant Professor

##### William Gardner

BSEE MIT, BEd Toronto, PhD Victoria - Associate Professor

##### Gary Gréwal

BSc Brock, MSc, PhD Guelph - Associate Professor

##### Andrew Hamilton-Wright

BSc, MSc Guelph, PhD Waterloo - Associate Professor

##### Stefan C. Kremer

BSc Guelph, PhD Alberta - Associate Professor

##### Xining Li

BSc, MSc Nanjing, PhD Calgary - Professor

##### Pascal Matsakis

BSc, MSc, PhD Paul Sabatier (France) - Professor and Director

##### Judi R. McCuaig

BEd, BSc, MS, PhD Saskatchewan - Associate Professor

##### Blair Nonnecke

BSc, MSc Guelph, PhD South Bank - Associate Professor

##### Charlie F. Obimbo

MSc Kiev, PhD New Brunswick - Associate Professor

##### Joseph Sawada

BSc, PhD Victoria (British Columbia) - Associate Professor

##### Stacey Scott

BSc Dalhousie, PhD Calgary - Assistant Professor

##### Fei Song

BSc Jilin (China), MSc Academia Sinica (China), PhD Waterloo - Associate Professor

##### Deborah A. Stacey

BSc Guelph, MSc, PhD Waterloo - Associate Professor

##### Fangju Wang

BE Changsha, MSc Peking, PhD Waterloo - Professor

##### Mark Wineberg

BSc Toronto, MSc, PhD Carleton - Associate Professor

##### Michael A. Wirth

BSc New England (Aust.), MSc Manitoba, PhD RMIT Melbourne - Associate Professor

##### Yang Xiang

BSS, MSc BUAA (Beijing), PhD UBC - Professor

#### From the Department of Economics and Finance

##### Miana Plesca

BSc Technical University of Cluj (Romania); MA Georgetown (Washington, D.C.); PhD Western - Associate Professor and Interim Associate Dean, Research and Graduate Programs, College of Business and Economics

#### From the School of Engineering

##### Hussein A. Abdullah

BSc Univ. of Technology, MSc, PhD Glasgow, PEng - Professor and Director

##### Shawki Areibi

BASc Al-Fateh, MASc Waterloo, PhD Waterloo, PEng - Professor

##### Fantahun Defersha

BSc Ethiopia, MEng India, PhD Concordia - Assistant Professor

##### Robert Dony

BASc, MASc Waterloo, PhD McMaster, PEng, FIET, FEC - Associate Professor

##### Stefano Gregori

Laurea, Doctorate Univ. of Pavia - Associate Professor

##### Medhat A. Moussa

BSc American, MASc Moncton, PhD Waterloo, PEng - Professor

##### Radu Muresan

Dipl. Engg Technical Univ. of Cluj-Napoca (Romania); MASc, PhD Waterloo, PEng - Associate Professor

##### Beth Parker

BS Pennsylvania, MS North Carolina, PhD Waterloo - Professor

##### Graham Taylor

BASc, MASc Waterloo, PhD Toronto - Assistant Professor

##### Simon X. Yang

BSc Peking, MSc Sinica, MSc Houston, PhD Alberta - Professor

#### From the School of English and Theatre Studies

##### Susan Brown

BA King's College and Dalhousie, MA Dalhousie, PhD Alberta - Professor

#### From the Department of Geography

##### Wanhong Yang

BSc Hubei, MSc Chinese Academy of Sciences, PhD Illinois - Professor

#### From the Department of History

##### Kris E. Inwood

BA Trent, MA, PhD Toronto - Professor

#### From the Department of Integrative Biology

##### Robert Hanner

BSc Eastern Michigan University, PhD University of Oregon - Associate Professor

##### Robert L. McLaughlin

BSc Windsor, MSc Queen's, PhD McGill - Associate Professor

#### From the Department of Mathematics and Statistics

##### Gerarda Darlington

BSc, MSc Guelph, PhD Waterloo - Professor

#### From the Department of Pathobiology

##### Shayan Sharif

DVM Tehran, PhD Guelph - Professor

#### From the Department of Population Medicine

##### Amy Greer

BSc, Mount Allison, MSc, Trent, PhD Arizona State - Assistant Professor

##### David Pearl

BSc McGill, MSc York, DVM, PhD Guelph - Associate Professor

##### Zvonimir Poljak

DVM Croatia, MSc, PhD Guelph - Associate Professor

#### From the Department of Psychology

##### Naseem Al-Aidroos

BSc Waterloo, MA, PhD Toronto - Assistant Professor

##### Mark J. Fenske

BSc Lethbridge, MA, PhD Waterloo - Associate Professor

##### Lana M. Trick

BSc Calgary, MA, PhD Western Ontario - Associate Professor

#### PhD Program

The objective of the PhD program is to produce interdisciplinary scholars who are capable of tackling emerging problems in a variety of disciplines through investigation and application of current computer technologies. Students require two co-advisors: one from the School of Computer Science; and the second from another discipline (see Graduate Faculty).

## Admission Requirements

In addition to the Office of Graduate Studies admission requirements, applicants must submit: (i) a current CV including research publications; and (ii) a statement of research (maximum of 1500 words). The minimum academic requirement for admission to the PhD program is normally a recognized Master's degree that included a thesis or major independent project. We do not require students entering the program to have a credential in Computer Science. Such students are required to identify their experience using computerized techniques and demonstrate that they have the necessary background to complete the tasks outlined in a research proposal.

In exceptional circumstances, a student who has completed an honours undergraduate Computer Science degree (or an equivalent 4-year undergraduate degree) may apply for direct admission to the PhD program. The successful applicant must have an outstanding academic record, breadth of knowledge in Computer Science, demonstrated research accomplishments, and strong letters of recommendation.

Prospective students should check the School of Computer Science (SoCs) website <http://www.socs.uoguelph.ca/> for further details, procedures and deadlines.

## Degree Requirements

The PhD program requires completion of CIS\*6890: Technical and Communication Research Methodology, coupled with any additional courses and/or Computational Learning Modules assigned by the Advisory Committee on entry to the program. To achieve candidacy, students are expected to present a research proposal in a two-part seminar and successfully complete the Qualifying Examination (QE). Finally, students must present and defend a thesis.

## Courses

<b>CIS*6890 Technical Communication and Research Methodology U [0.50]</b>
This course aims to develop students' ability in technical communication and general research methodology. Each student is expected to present a short talk, give a mini lecture, review a conference paper, write a literature survey and critique fellow students' talks and lectures.
<i>Department(s):</i> School of Computer Science