



## MBG\*3060 Quantitative Genetics

Winter 2018

Section: DE01

Department of Animal Biosciences

Credit Weight: 0.50

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### Course Details

#### **Calendar Description**

This course examines the nature of Mendelian inheritance when extended to quantitative traits that are jointly influenced by the environment and the simultaneous segregation of many genes. Prediction of response to natural and artificial selection in populations will also be studied.

**Pre-Requisite(s):** MBG\*2400, 0.50 credits in statistics

**Co-Requisite(s):** None

**Restriction(s):** None

**Method of Delivery:** Online

#### **Final Exam**

**Date:** Wednesday, April 18, 2018

**Time:** 7:00 pm ET to 9:00 pm ET

**Location:** On campus

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## Instructional Support

### Instructor

**Andy Robinson**

**Email:** [andy@uoguelph.ca](mailto:andy@uoguelph.ca)

**Telephone:** (519) 824-4120 Ext. 53679

**Office:** Animal Science and Nutrition, Room 122

Dr. Robinson's research interests include genetic and genomic evaluation for traits of economic importance in swine and fish with some additional work in horse and dog genetics. His recent research has looked at production, conformation and health traits in pigs and in aquaculture species including Atlantic Cod and Atlantic Salmon. In addition, he has collaborated on projects in dairy calf health and service dog genetic improvement. Dr. Robinson returned to academic life in 2000 after a 13-year public and private sector career in livestock improvement, first with the federal government developing a national dairy cattle genetic evaluation system for production and subsequently with swine and beef cattle improvement organizations working with producers and researchers to deliver and enhance genetic improvement programs regionally and nationally. Dr. Robinson currently teaches Quantitative Genetics (MBG-3060) in both a face-to-face and distance education format, Genetics of Companion Animals (MBG-4020), part of Introduction to Agri-Food Systems (AGR-1110), part of Fundamentals of Plant and Animal Genetics (MBG-2400) and part of Biology of Plants and Animals in Managed Ecosystems (BIOL-1050).

### Teaching Assistants

**Name:** Kristen Alves

**Email:** [kalves@uoguelph.ca](mailto:kalves@uoguelph.ca)

**Name:** Shannon Beard

**Email:** [sbeard@uoguelph.ca](mailto:sbeard@uoguelph.ca)

**Name:** Amanda MacDonald

**Email:** [amacdo21@uoguelph.ca](mailto:amacdo21@uoguelph.ca)

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## Learning Resources

### Required Textbook

There is no required textbook for this course.

## Supplementary Materials

This course includes supplementary materials. These materials are meant to supplement the required readings and course content. You can explore the materials at your own pace. To access these materials, select **Content** on the navbar to locate **Supplementary Materials** in the table of contents panel.

## Course Website

[CourseLink](#) (powered by D2L's Brightspace) is the course website and will act as your classroom. It is recommended that you log in to your course website every day to check for announcements, access course materials, and review the weekly schedule and assignment requirements.

<https://courselink.uoguelph.ca/shared/login/login.html>

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## Learning Outcomes

### Course Learning Outcomes

This course examines the nature of Mendelian inheritance when extended to quantitative traits that are jointly influenced by the environment and the simultaneous segregation of many genes. Prediction of response to natural and artificial selection in populations will also be studied.

Quantitative Genetics, MBG\*3060, is a 0.5 credit course one semester in length. The prerequisite for MBG\*3060 is Introductory Genetics MBG\*2000 plus a 0.5 credit course in statistics. MBG\*3060 has no co-requisites or concurrent courses and no courses as exclusions. MBG\*3060 is a prerequisite for MBG\*4030 Animal Breeding Methods.

Starting from a foundation of single gene Mendelian inheritance and expanding that to a few and then many genes, students will explore genetic variability as the engine that drives natural and artificial selection for quantitative traits. The course culminates in an exploration of techniques to detect and utilize major genes segregating in animal populations.

Genetic variation is the engine that drives natural and artificial selection. Quantitative Genetics focuses on quantifying and measuring traits and variation in those traits. By the end of this course, you will be able to analyze and quantify genetic variation and demonstrate how it can be influenced and manipulated, both by natural and artificial means.

By the end of this course, you should be able to:

1. Analyze how allele frequency can fluctuate within a population over time, describe factors that affect these fluctuations and analyze how these factors affect genetic variation;

2. Estimate levels of genetic variation within a population and demonstrate how that variation may be exploited to make genetic change in populations over time
  3. Demonstrate how an individual locus can contribute to quantitative genetic variation involving many loci in the same individual or in many individuals in the population;
  4. Demonstrate how genetic variation can be gained or lost through selection of mates, combining different populations and other mechanisms; and
  5. Demonstrate why the mating of close relatives leads to a loss of genetic variation and how to recover lost genetic variation.
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## Teaching and Learning Activities

### Course Structure

This course is divided into 9 units:

- Unit 01: Review of Mendelian Genetics
- Unit 02: Linkage
- Unit 03: Migration, Selection, Mutation
- Unit 04: Sampling from a Population
- Unit 05: Individual Inbreeding and Relationships
- Unit 06: Heritability and Response to Selection
- Unit 07: ANOVA for Estimating Heritability and Repeatability
- Unit 08: Direct and Correlated Response and Individual Allele Effects
- Unit 09: QTL Detection and Genetic Mapping

### Schedule

It is strongly recommended that you follow the course schedule provided below. The schedule outlines what you should be working on each week of the course and lists the important due dates for the assessments. By following the schedule, you will be better prepared to complete the assessments and succeed in this course.

#### **Unit 01: Review of Mendelian Genetics**

**Weeks 1 and 2 – Monday, January 8 to Monday, January 22**

##### **Readings**

- Unit 01 course content
- Slides and Notes (see **Supplementary Materials** under Content).

## Activities

- Familiarize yourself with the course website by selecting **Start Here** on the navbar.
- Review **Outline** and **Assessments** on the course website to learn about course expectations, assessments, and due dates.
- Post to the "Introduce Yourself" **Discussions** forum.

## Assessments

- **Online Quiz 1:** Allele Frequency, Sex Linkage  
Opens: Sunday, January 14 at 6:00 am ET  
Closes: Monday, January 22 at 11:59 pm ET

## Unit 02: Linkage

### Week 3 – Sunday, January 21 to Monday, January 29

#### Readings

- Unit 02 course content
- Slides and Notes (see **Supplementary Materials** under Content).

#### Assessments

- **Online Quiz 2:** Linkage Disequilibrium, Detecting Carriers  
Opens: Sunday, January 21 at 6:00 am ET  
Closes: Monday, January 29 at 11:59 pm ET

## Unit 03: Migration, Selection, Mutation

### Week 4 – Sunday, January 28 to Monday, February 5

#### Readings

- Unit 03 course content
- Slides and Notes (see **Supplementary Materials** under Content).

#### Assessments

- **Online Quiz 3:** Selection  
Opens: Sunday, January 28 at 6:00 am ET  
Closes: Monday, February 5 at 11:59 pm ET

## Unit 04: Sampling from a Population

### Week 5 – Sunday, February 4 to Monday, February 12

#### Readings

- Unit 04 course content
- Slides and Notes (see **Supplementary Materials** under Content).

### **Assessments**

- **Online Quiz 4:** Effective Population Size, Population Inbreeding  
Opens: Sunday, February 4 at 6:00 am ET  
Closes: Monday, February 12 at 11:59 pm ET

## **Unit 05: Individual Inbreeding and Relationships**

**Weeks 6 and 7 – Sunday, February 11 to Monday, March 5**

**\*Note that the timing of Unit 05 overlaps the Winter Break and the Online Midterm**

### **Readings**

- Unit 05 course content
- Slides and Notes (see **Supplementary Materials** under Content).

### **Activities**

- Begin reviewing Unit 05 material the week before the Winter Break in preparation for the quiz opening after Winter Break in Week 7.
- Don't forget about the Online Midterm Quiz during Week 6 (Feb 13 to Feb 16)

### **Assessments**

- **Online Midterm Quiz** (see **Quizzes** under the Tools dropdown list).  
Opens: Tuesday, February 13 at 12:01 am ET  
Closes: Friday, February 16 by 11:59 pm ET
- **Online Quiz 5:** Relationships and Inbreeding (Week 7)  
Opens: Sunday, February 25 at 6:00 am ET  
Closes: Monday, March 5 by 11:59 pm ET

***Winter Break: Monday, February 19 to Sunday, February 25***

## **Unit 06: Heritability and Response to Selection**

**Week 8 – Sunday, March 4 to Monday, March 12 (40<sup>th</sup> Class Day: Friday, March 9)**

### **Readings**

- Unit 06 course content

### **Assessments**

- **Online Quiz 6:** Heritability, Response to Selection  
Opens: Sunday, March 4 at 6:00 am ET  
Closes: Monday, March 12 at 11:59 pm ET

## Unit 07: ANOVA for Estimating Heritability and Repeatability

### Week 9 – Sunday, March 11 to Monday, March 19

#### Readings

- Unit 07 course content
- Slides and Notes (see **Supplementary Materials** under Content).

#### Assessments

- **Online Quiz 7:** Heritability, Estimation  
Opens: Sunday, March 11 at 6:00 am ET  
Closes: Monday, March 19 at 11:59 pm ET

## Unit 08: Direct and Correlated Response and Individual Allele Effects

### Week 10 – Sunday, March 18 to Monday, March 26

#### Readings

- Unit 08 course content
- Slides and Notes (see **Supplementary Materials** under Content).

#### Activities

- **Plan ahead** – the Selection Quiz and the Makeup Quiz open Week 10 for two weeks. Both of these quizzes review the entire course.

#### Assessments

- **Online Quiz 8:** Direct and Correlated Response, Allele Effects  
Opens: Sunday, March 18 at 6:00 am ET  
Closes: Monday, March 26 at 11:59 pm ET
- **Selection Quiz**  
Opens: Sunday, March 18 at 6:00 am ET  
Closes: Friday, April 6 at 11:59 pm ET
- **Makeup Quiz**  
The Makeup Quiz (or Quiz 10) has questions from the entire course and can be used to replace your lowest quiz grade on Quizzes 1 – 9. It is also a great way to prep for the final exam because the questions cover the entire course.  
Opens: Sunday, March 18 at 6:00 am ET  
Closes: Friday, April 6 at 11:59 pm ET

## Unit 09: QTL Detection and Genetic Mapping

### Week 11 – Sunday, March 25 to Monday, April 2

#### Readings

- Unit 09 course content
- Slides and Notes (see **Supplementary Materials** under Content).

#### Assessments

- **Online Quiz 9: Allele Effects, QTL Detection**  
Opens: Sunday, March 25 at 6:00 am ET  
Closes: Monday, April 2 at 11:59 pm ET
- **Selection Quiz**  
Opens: Sunday, March 18 at 6:00 am ET  
Closes: Friday, April 6 at 11:59 pm ET
- **Makeup Quiz**  
Opens: Sunday, March 18 at 6:00 am ET  
Closes: Friday, April 6 at 11:59 pm ET

## Course Review

### Week 12 – Sunday, April 1 to Friday, April 6

#### Activities

- Review content and material Units 01 to 09.
- Note the Selection Quiz is open for two weeks starting in Week 10
- Begin preparing for final exam.

#### Assessments

- **Selection Quiz**  
Opens: Sunday, March 18 at 6:00 am ET  
Closes: Friday, April 6 at 11:59 pm ET
- **Makeup Quiz**  
Opens: Sunday, March 18 at 6:00 am ET  
Closes: Friday, April 6 at 11:59 pm ET



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## Assessments

The grade determination for this course is indicated in the following table. A brief description of each assessment is provided below. Select **Content** on the navbar to locate **Assessments** in the table of contents panel to review further details of each assessment. Due dates can be found under the Schedule heading of this outline.

**Table 1: Course Assessments**

<b>Assessment Item</b>	<b>Weight</b>	<b>Learning Outcomes</b>
Online Quizzes	36%	1,2,3,4,5
Selection Quiz	4%	1,4
Midterm Quiz	15%	1,3,5
Final Exam	45%	1,2,3,4,5
<b>Total</b>	<b>100%</b>	

### Assessment Descriptions

#### Online Quizzes

After Quiz 1, each weekly quiz has 15 questions; the first 10 follow the practice quizzes (see below) and the final 5 explore concepts that integrate previous topics and relate the theory to practical applications.

There are 9 weekly quizzes throughout the semester and a Bonus / Makeup Quiz at the end of the semester (the best 9 quiz grades will be used for your final grade). Note: the "selection quiz" is not part of this "best 9" system.

#### Selection Quiz

You will be required to take a Selection Quiz in Weeks 11 and 12 of the course. You have no time limit to take the Selection Quiz, but you are required to complete this task on or before the due date (see the Schedule section of this course outline). In other words, while the Selection Quiz is open, you can re-open and re-enter the quiz as often as you like until you submit it.

#### Midterm Quiz

There will be an online midterm test for this course. You are allowed one attempt and a maximum of 3 hours to complete the midterm quiz. It is your responsibility to ensure that you log in into CourseLink, and submit your responses within the timeline. Note that you

are expected to complete the quiz individually without the assistance from your fellow students.

## Final Exam

This course requires you to write a traditional sit-down final exam. Final exams are written on campus at the University of Guelph or at alternate locations for students at a distance. The final exam will cover material from all 9 course units.

It is assumed that all DE students will be writing their final examination on campus at the University of Guelph. University of Guelph degree and associate diploma students must check [WebAdvisor](#) for their examination schedule. Open Learning program students must check the [Open Learning Program Final Examination Schedule](#) for their examination schedule.

If you are studying at a distance, you can request to write your final exam at an alternate location. It is recommended that you make arrangements as early as possible in the semester since changes cannot be guaranteed after the deadline. Exam schedules for off-campus exams will be emailed by Week 9 of the course. For more information, please visit [Final Exams](#).

<https://webadvisor.uoguelph.ca>

<http://opened.uoguelph.ca/student-resources/Open-Learning-Program-Final-Exam-Schedule>

<http://opened.uoguelph.ca/student-resources/final-exams>

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## Course Technologies and Technical Support

### CourseLink System Requirements

You are responsible for ensuring that your computer system meets the necessary [system requirements](#). Use the [browser check](#) tool to ensure your browser settings are compatible and up to date. (Results will be displayed in a new browser window).

<http://spaces.uoguelph.ca/ed/system-requirements/>

<https://courselink.uoguelph.ca/d2l/systemCheck>

### Technical Skills

As part of your online experience, you are expected to use a variety of technology as part of your learning:

- Manage files and folders on your computer (e.g., save, name, copy, backup, rename, delete, and check properties);
- Install software, security, and virus protection;

- Use office applications (e.g., Word, PowerPoint, Excel, or similar) to create documents;
- Be comfortable uploading and downloading saved files;
- Communicate using email (e.g., create, receive, reply, print, send, download, and open attachments);
- Navigate the CourseLink learning environment and use the essential tools, such as **Quizzes**, **Discussions**, and **Grades** (the instructions for this are given in your course);
- Access, navigate, and search the Internet using a web browser (e.g., Firefox, Internet Explorer); and
- Perform online research using various search engines (e.g., Google) and library databases.

## Course Technologies

### CourseLink

Distance Education courses are offered entirely online using CourseLink (powered by D2L's Brightspace), the University of Guelph's online learning management system (LMS). By using this service, you agree to comply with the [University of Guelph's Access and Privacy Guidelines](#). Please visit the D2L website to review the [Brightspace privacy statement](#) and [Brightspace Learning Environment web accessibility standards](#).

<http://www.uoguelph.ca/web/privacy/>

<https://www.d2l.com/legal/privacy/>

<https://www.d2l.com/accessibility/standards/>

### Technical Support

If you need any assistance with the software tools or the CourseLink website, contact CourseLink Support.

#### CourseLink Support

University of Guelph

Day Hall, Room 211

Email: [courselink@uoguelph.ca](mailto:courselink@uoguelph.ca)

Tel: 519-824-4120 ext. 56939

Toll-Free (CAN/USA): 1-866-275-1478

#### Walk-In Hours (Eastern Time):

Monday thru Friday: 8:30 am–4:30 pm

#### Phone/Email Hours (Eastern Time):

Monday thru Friday: 8:30 am–8:30 pm

Saturday: 10:00 am–4:00 pm

Sunday: 12:00 pm–6:00 pm

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# Course Specific Standard Statements

## Acceptable Use

The University of Guelph has an [Acceptable Use Policy](#), which you are expected to adhere to.

<https://www.uoguelph.ca/ccs/infosec/aup>

## Communicating with Your Instructor

The instructor for this course is involved with both an in-class and distance education section of the course therefore the instructor is maintaining separate CourseLink sites for the same course. To make it possible to find you in CourseLink, in email communication you need to identify you are in the **DE section** in all correspondence to facilitate a faster response to your query.

During the course, your instructor will interact with you on various course matters on the course website using the following ways of communication:

- **Announcements:** The instructor will use **Announcements** on the Course Home page to provide you with course reminders and updates. Please check this section frequently for course updates from your instructor.
- **Ask Your Instructor Discussion:** Use this discussion forum to ask questions of your instructor about content or course-related issues with which you are unfamiliar. If you encounter difficulties, the instructor is here to help you. Please post general course-related questions to the discussion forum so that all students have an opportunity to review the response. To access this discussion forum, select **Discussions** from the **Tools** dropdown menu.
- **Email:** If you have a conflict that prevents you from completing course requirements, or have a question concerning a personal matter, you can send your instructor a private message by email. The instructor will respond to your email within 24 to 48 hours. The instructor will also use the email facility within CourseLink to provide timely updates and gentle nudges and reminders throughout the semester.
- **Skype:** If you have a complex question you would like to discuss with your instructor, you may book a Skype meeting. Skype meetings depend on the availability of you and the instructor, and are booked on a first come first served basis.

## Podcasts

The instructor will record lectures for the in-class section and post edited video podcasts on CourseLink throughout the semester within a few days after each lecture for the convenience of the students studying in the distance education format as well. This is an optional resource that you may use in addition to any other materials provided for the

course. The podcast will have real-time video of the image shown on the classroom projector overlaid with the audio of the instructor's comments and may include hand-written comments, other media etc. These podcasts will represent the officially sanctioned recorded media for the lecture and are provided for the convenience of students officially registered in the course and may not be reproduced, or transmitted to others, without the express written consent of the instructor. Note that there may be circumstances in which not all of a lecture is recorded.

## **Netiquette Expectations**

For distance education courses, the course website is considered the classroom and the same protections, expectations, guidelines, and regulations used in face-to-face settings apply, plus other policies and considerations that come into play specifically because these courses are online.

Inappropriate online behaviour will not be tolerated. Examples of inappropriate online behaviour include:

- Posting inflammatory messages about your instructor or fellow students;
- Using obscene or offensive language online;
- Copying or presenting someone else's work as your own;
- Adapting information from the Internet without using proper citations or references;
- Buying or selling term papers or assignments;
- Posting or selling course materials to course notes websites;
- Having someone else complete your quiz or completing a quiz for/with another student;
- Stating false claims about lost quiz answers or other assignment submissions;
- Threatening or harassing a student or instructor online;
- Discriminating against fellow students, instructors, and/or TAs;
- Using the course website to promote profit-driven products or services;
- Attempting to compromise the security or functionality of the learning management system; and
- Sharing your username and password.

## **Late Policy**

Weekly quizzes are open for a period of 8 days. The Selection Quiz and the Bonus / Makeup Quiz are open for over 12 days. The quizzes themselves should take 2 to 3 hours to complete during this extended availability period. Please note if you are registered with SAS, since there is an extended availability period for these quizzes, any accommodations you have for time-limited exams and quizzes are not applicable.

Solutions to the quizzes are released the morning following the due date so there is no provision for late completion of quizzes. If you are unable to complete your quiz due to a prolonged illness or situation meriting academic consideration contact your instructor as noted below.

For the midterm quiz, if you are registered with SAS and have been granted accommodations for exams, you email the instructor by February 5 at 5:00pm in order to have your accommodations set properly. When emailing the instructor for accommodations, provide details about your accommodations with a CC to your SAS advisor. Failure to notify the instructor by the deadline may result in not having your accommodations for the midterm quiz.

Academic consideration may be granted for medical reasons or other extenuating circumstances. If you require academic consideration, discuss this with the instructor as soon as possible and well before the due date. These rules are not designed to be arbitrary, nor are they inflexible. They are designed to keep you organized, to ensure that all students have the same amount of time to work on assignments, and to help to return marked materials to you in the shortest possible time.

## **Obtaining Grades and Feedback**

Unofficial assessment marks will be available in the **Grades** tool of the course website.

Weekly quiz grades are released the morning after your quiz is due. The online midterm grade will be released as soon as every student and all academic consideration requests are accounted for. Online participation grades will be calculated immediately before the final exam, when all the participating is complete. Once your assignments are marked you can view your grades on the course website by selecting **Grades** from the **Tools** dropdown menu on the navbar. Your course will remain open to you for seven days following the last day of the final exam period.

University of Guelph degree students can access their final grade by logging into [WebAdvisor](#) (using your U of G central ID). Open Learning program students should log in to the [OpenEd Student Portal](#) to view their final grade (using the same username and password you have been using for your courses).

<https://webadvisor.uoguelph.ca>

<https://courses.opened.uoguelph.ca/portal/logon.do?method=load>

## **Rights and Responsibilities When Learning Online**

For distance education (DE) courses, the course website is considered the classroom and the same protections, expectations, guidelines, and regulations used in face-to-face settings apply, plus other policies and considerations that come into play specifically because these courses are online.

For more information on your rights and responsibilities when learning in the online environment, visit [Rights and Responsibilities](#).

<http://opened.uoguelph.ca/student-resources/rights-and-responsibilities>

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# University Standard Statements

## University of Guelph: Undergraduate Policies

As a student of the University of Guelph, it is important for you to understand your rights and responsibilities and the academic rules and regulations that you must abide by.

If you are a registered **University of Guelph Degree Student**, consult the [Undergraduate Calendar](#) for the rules, regulations, curricula, programs and fees for current and previous academic years.

If you are an **Open Learning Program Student**, consult the [Open Learning Program Calendar](#) for information about University of Guelph administrative policies, procedures and services.

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/>

<http://opened.uoguelph.ca/student-resources/open-learning-program-calendar>

## Email Communication

### University of Guelph Degree Students

As per university regulations, all students are required to check their uoguelph.ca e-mail account regularly: e-mail is the official route of communication between the University and its students.

### Open Learning Program Students

Check your email account (the account you provided upon registration) regularly for important communications, as this is the primary conduit by which the Open Learning and Educational Support will notify you of events, deadlines, announcements or any other official information.

## When You Cannot Meet Course Requirements

When you find yourself unable to meet an in-course requirement due to illness or compassionate reasons, please advise your course instructor **in writing**, with your name, ID number, course code, section (DE) and email contact.

### University of Guelph Degree Students

Consult the [Undergraduate Calendar](#) for information on regulations and procedures for Academic Consideration.

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

## **Open Learning Program Students**

Please refer to the [Open Learning Program Calendar](#) for information on regulations and procedures for requesting Academic Consideration.

<http://opened.uoguelph.ca/student-resources/open-learning-program-calendar>

## **Drop Date**

### **University of Guelph Degree Students**

The last date to drop one-semester courses, without academic penalty, is indicated on the Schedule section of this course outline. [Review the Undergraduate Calendar for regulations and procedures for Dropping Courses.](#)

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-drop.shtml>

### **Open Learning Program Students**

Please refer to the [Open Learning Program Calendar](#).

<http://opened.uoguelph.ca/student-resources/open-learning-program-calendar>

## **Copies of Assignments**

Keep paper and/or other reliable back-up copies of all assignments: you may be asked to resubmit work at any time.

## **Accessibility**

The University of Guelph is committed to creating a barrier-free environment. Providing services for students is a shared responsibility among students, faculty and administrators. This relationship is based on respect of individual rights, the dignity of the individual and the University community's shared commitment to an open and supportive learning environment.

### **University of Guelph Degree Students**

Students requiring service or accommodation, whether due to an identified, ongoing disability or a short-term disability should contact Accessibility Services as soon as possible.

For more information, contact Accessibility Services at 519-824-4120 ext. 56208, [email Accessibility Services](#) or visit the [Accessibility Services website](#).

[accessibility@uoguelph.ca](mailto:accessibility@uoguelph.ca)

<https://wellness.uoguelph.ca/accessibility/>



## Open Learning Program Students

If you are an Open Learning program student who requires academic accommodation, please [contact the Academic Assistant to the Director](#). Please ensure that you contact us before the end of the first week of your course (every semester) in order to avoid any delays in support. Documentation from a health professional is required for all academic accommodations. Please note that all information provided will be held in confidence.

If you require textbooks produced in an alternate format (e.g., DAISY, Braille, large print or eText), please [contact the Academic Assistant to the Director](#) at least two months prior to the course start date. If contact is not made within the suggested time frame, support may be delayed. It is recommended that you refer to the course outline before beginning your course in order to determine the required readings.

The provision of academic accommodation is a shared responsibility between OpenEd and the student requesting accommodation. It is recognized that academic accommodations are intended to “level the playing field” for students with disabilities.

[jessica.martin@uoguelph.ca](mailto:jessica.martin@uoguelph.ca)

## Academic Misconduct

The University of Guelph is committed to upholding the highest standards of academic integrity and it is the responsibility of all members of the University community – faculty, staff, and students – to be aware of what constitutes academic misconduct and to do as much as possible to prevent academic offences from occurring. University of Guelph students have the responsibility of abiding by the University's policy on academic misconduct regardless of their location of study; faculty, staff and students have the responsibility of supporting an environment that discourages misconduct. Students need to remain aware that instructors have access to and the right to use electronic and other means of detection.

Please note: Whether or not a student intended to commit academic misconduct is not relevant for a finding of guilt. Hurried or careless submission of assignments does not excuse students from responsibility for verifying the academic integrity of their work before submitting it. Students who are in any doubt as to whether an action on their part could be construed as an academic offence should consult with a faculty member or faculty advisor.

The [Academic Misconduct Policy](#) is detailed in the Undergraduate Calendar.

<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-amisconduct.shtml>

## Copyright Notice

Content within this course is copyright protected. Third party copyrighted materials (such as book chapters and articles) have either been licensed for use in this course, or have been copied under an exception or limitation in Canadian Copyright law.

The fair dealing exemption in Canada's Copyright Act permits students to reproduce short excerpts from copyright-protected materials for purposes such as research, education, private study, criticism and review, with proper attribution. Any other copying, communicating, or distribution of any content provided in this course, except as permitted by law, may be an infringement of copyright if done without proper license or the consent of the copyright owner. Examples of infringing uses of copyrighted works would include uploading materials to a commercial third party web site, or making paper or electronic reproductions of all, or a substantial part, of works such as textbooks for commercial purposes.

Students who upload to CourseLink copyrighted materials such as book chapters, journal articles, or materials taken from the Internet, must ensure that they comply with Canadian Copyright law or with the terms of the University's electronic resource licenses.

For more information about students' rights and obligations with respect to copyrighted works, review [Fair Dealing Guidance for Students](#).

[http://www.lib.uoguelph.ca/sites/default/files/fair\\_dealing\\_policy\\_0.pdf](http://www.lib.uoguelph.ca/sites/default/files/fair_dealing_policy_0.pdf)

## **Plagiarism Detection Software**

Students should be aware that faculty have the right to use software to aid in the detection of plagiarism or copying and to examine students orally on submitted work. For students found guilty of academic misconduct, serious penalties, up to and including suspension or expulsion from the University can be imposed.

## **Recording of Materials**

Presentations which are made in relation to course work—including lectures—cannot be recorded or copied without the permission of the presenter, whether the instructor, a classmate or guest lecturer. Material recorded with permission is restricted to use for that course unless further permission is granted.