



BIOC*2580 Introduction to Biochemistry

Winter 2021

Section(s): C01

Department of Molecular and Cellular Biology

Credit Weight: 0.50

Version 1.00 - January 06, 2021

1 Course Details

1.1 Calendar Description

This course introduces students to the evolution, chemical structure, and biological roles of the major molecular components of the cell: including proteins, nucleic acids, lipids, and carbohydrates. Topics and processes integrated through understanding biological macromolecules include enzymology and intermediary metabolism, with emphasis on catabolic processes. Students will gain basic investigative skills through hands-on experiences in a laboratory setting.

Pre-Requisites: CHEM*1050

1.2 Timetable

Lectures

Mon, Wed, Fri 1:30-2:20 PM

PLEASE NOTE: ALL TIMES REPORTED ARE **EASTERN TIME** (GUELPH, ONTARIO, CANADA).

Lectures will be presented through a combination of synchronous lectures via Zoom* and pre-recorded lectures.

*All synchronous lectures will also be recorded and made available for asynchronous viewing

All material covered in lectures is the responsibility of the student, including announcements regarding midterms, labs, and exams.

1.3 Final Exam

Thursday, April 22, 2021

Start Time: 11:30 AM

Duration: 2 Hrs

Online through Courselink Quizzes

2 Instructional Support

2.1 Instructional Support Team

Instructor: Dr. Enoka Wijekoon
Email: bioc2580@uoguelph.ca
Telephone: +1-519-824-4120 x56095
Office: SSC 3517
Office Hours: Monday and Wednesday 3:00-4:30 pm (via Zoom)

Instructor: Dr. John Dawson
Email: bioc2580@uoguelph.ca
Office: virtually, using Zoom
Office Hours: My classes will be recorded beforehand and I will try to keep them focused on the content, keeping them to 25-30 minutes each. I will regularly poll the class and use the Discussion Board to discover challenging concepts and then address these in virtual question and answer periods to be held during the last 25 minutes of regularly scheduled classes, using Zoom. All question and answer periods will be recorded and posted on CourseLink.

Lab Co-ordinator: Jaspreet Kaur
Email: bioc2580@uoguelph.ca
Telephone: +1-519-824-4120 x58220 (office)
Office: SC1 3521
Office Hours: Send an email to jkaur@uoguelph.ca for any Lab related issue.

If you send an email to bioc2580@uoguelph.ca , always put your Lab section number and your TA's name in the subject line.

I will hold virtual office hours via zoom during the weeks when the Lab Write-ups are due. Exact time will be posted in the Announcements on Courselink.

3 Learning Resources

3.1 Required Resources

Introduction to Biochemistry e-textbook (Website)

The Introduction to Biochemistry e-textbook is a **FREE** text companion to the lectures for BIOC*2580, containing all of the important information you need to cover for the course. It's free and contains alerts for content that is related to the labs and chapter-ending example questions for you to test yourself.

The e-textbook can be access through a link found on CourseLink.

Zoom (Software)

<https://zoom.us>

We will be using Zoom for the live portions in this course. The application is more stable than the web-based version of the program including the seamless use of break-out rooms, polls, and annotation, all of which might be used in this class.

3.2 Recommended Resources

High Speed Internet (Equipment)

Although high speed connection to the internet is not required, it is highly recommended so that a better online experience with the tools, videos, and other materials used in the course can be achieved.

Lehninger Principles of Biochemistry (Textbook)

The following text is **recommended**, especially if you also intend to take the second biochemistry course, BIOC*3560 Structure and Function in Biochemistry. It is also used in several other senior biochemistry courses:

Lehninger Principles of Biochemistry; D.L. Nelson and M.M. Cox, 7th ed. (2017) **OR** 6th ed. (2013) W.H. Freeman, NY.

Multiple copies of this text book are on Reserve in the library. An ebook is also available to be borrowed on a single user basis.

There are multiple options, each containing the same information, but in slightly different formats:

1. The hardcover textbook bundled with Sapling Plus*
2. The loose-leaf textbook bundled with Sapling Plus
3. Sapling plus for Lehninger Principles of Biochemistry (gives access to ebook for 24 months)

*Sapling Plus gives access to all online resources associated with the text book and the ebook. Use it for self study. It will NOT be used in the course to assign homework or for evaluation purposes.

Loose leaf versions cannot be resold as a used textbook at the Bookstore. **BE AWARE: With the eBook, you are purchasing access to the electronic version for a specific period of time; once this is over, you will not be able to access the eBook.**

3.3 Getting Help in BIOC*2580

There are several ways to get help in BIOC*2580

1. Course Discussion Board (favoured approach)

Check the Class Discussion Board for your questions. If it is not there, post your content-related question to the discussion board and we will answer your question within 24 hours!

Why use the Discussion Board?

It's good for you and for everyone in the class! It's not uncommon that we get the same or very similar questions over email. By posting to the Discussion Board, we save time and energy answering the same question multiple times. In addition, we can help each other by following the Discussion Board and helping each other out! Subscribe to the Discussion Board and sign up for notifications.

2. Course Email: bioc2580@uoguelph.ca

You can make use of the course e-mail address to ask questions. Only use your @uoguelph account when sending messages to this address. Enquiries regarding the laboratory should have the word LAB in the subject line. **E-mail may not be answered outside of office hours.**

3. Supported Learning Groups (SLG)

SLGs are free study sessions led by students. These trained SLG Leaders sit in on

lectures and run sessions that are informal, flexible, and fun. Students who make regular use of the SLG have a higher average grade on this course than those who do not. SLG information and schedules are available in CourseLink. SLG sessions this semester will be held via Courselink Virtual Classroom. See registration information and link on the BIOC*2580 courselink homepage.

4 Learning Outcomes

4.1 Course Learning Outcomes

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

1. Describe the structures and the chemical properties of the 20 amino acids.
2. Describe the methods used in the separation of amino acids and proteins based on their chemical properties.
3. Describe the first three levels of protein structure and explain how protein structure is influenced by the amino acid sequence.
4. Explain how enzymes catalyze reactions and how enzyme activity is affected by inactivators and inhibitors.
5. Describe the structure and the chemical properties of carbohydrates (monosaccharides and disaccharides), lipids (fatty acids, triglycerides and glycerophospholipids) and nucleic acids (RNA and DNA).
6. Describe the chemical reactions involved in the generation of ATP through the oxidation of glucose and fatty acids.
7. Apply several of the knowledge outcomes in 1-6 by effectively carrying out laboratory procedures to collect, properly record and analyse experimental data.
8. Manage time effectively and follow instructions to meet deadlines for course requirements.

5 Teaching and Learning Activities

5.1 Lecture Schedule

Class	Date	Topic	E-	Lehninger	Lehninger
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			Textbook	(6th ed)	(7th ed)
1	Jan 11	Biological polymers; building blocks and hydrolyzable bonds. Amino acids, peptides and proteins.	Chapters 1 and 2	11-15; 76; 85-86	12-16; 75-76; 85-86
2	Jan 13	Amino acids; polarity and ionization.		75-85	75-85
3	Jan 15	Properties of aqueous solutions; dissociation of weak electrolytes		47-50; 58-65	47-50; 58-65
4	Jan 18	Analytical methods and separation by chromatography	Chapters 3 and 4	89-96	89-96
5	Jan 20	More analytical methods		89-96	89-96
6	Jan 22	Polypeptides and proteins: structural hierarchy, sequence. Basis of reactivity and hydrolysis		96-102	96-102
	Jan 23-29	Quiz 1 (Lectures 1-6)			
7	Jan 25	Sequence determination	Chapters 5 and 6	96-102	96-102
8	Jan 27	Secondary structure I: α -helix, β -sheet		115-125	115-125
9	Jan 29	Secondary structure II: α -helix, β -sheet		115-125	115-125
10	Feb 1	Principles of tertiary structure	Chapters 7 and 8	125-140	125-141
11	Feb 2	Binding and recognition of substrates and specificity of enzymes		189-200	187-198
12	Feb 5	The basis of chemical and enzymatic catalysis		189-200	187-198
	Feb 6-12	Quiz 2 (lectures 7-12)			
13	Feb 8	Mechanism of action of chymotrypsin	Chapters 9 and 10	214-218	213-217
14	Feb 10	Enzyme assay and detection		95-96; 204-205	95-96; 203
15	Feb 12	Enzyme kinetics		200-213	198-213

	Feb 15-19	Winter Break - No Classes			
16	Feb 22	Enzyme kinetics: linear plots; Enzyme Inhibition and regulation	Chapter 11	200-213	198-213
17	Feb 24	Enzyme Inhibition and regulation contd		200-213	198-213
18	Feb 26	Review			
19	Mar 1	Lipids: fatty acids; TAG	Chapters	357-362	361-366
20	Mar 3	Lipids: Phospholipids; Analysis of lipids	12 and 13	362-364; 377- 379	366-369; 381- 383
21	Mar 5	Carbohydrate chemistry: simple sugars		243-245	241-243
	Mar 6	Midterm Examination (Start Time 1:00 PM)			
22	Mar 8	Carbohydrate chemistry: rings; reducing sugars	Chapters 13 and 14	245-248; 251	243-247; 249
23	Mar 10	Carbohydrate chemistry: glycosides and disaccharides		252-254	250-252
24	Mar 12	Chemistry of nucleic acid bases, nucleosides and polynucleotides		281-287	279-285
	March 13-19	Quiz 3 (Lectures 19-24)			
25	Mar 15	The DNA double helix	Chapters 15 to 19	287-290	285-287
26	Mar 17	ATP as cellular energy currency		517-524	507-514
27	Mar 19	Introduction to Metabolism: Redox reactions		501-504; 528- 538	491-494; 517- 522
28	Mar 22	Catabolism of fats	Chapters 20 and 21	665;667	649-650; 621
29	Mar 24	Fatty acid β -oxidation		667-677; 532- 537	652-659; 522- 526
30	Mar 26	Glycolysis: anaerobic energy generation		543-555	533-545
	Mar 27- Apr 1	Quiz 4 (Lectures 25-30)			

31	Mar 29	Fates of pyruvate and cytosolic NADH; fermentation	Chapters 21 and 22	758-759; 633-638; 563-565	619-624; 739-740; 553-558
32	Mar 31	Acetate to CO ₂ : the citric acid cycle		633; 638-650	619; 624-636
Apr 2 HOLIDAY					
33	Apr 5	The electron transport chain	Chapter 23	731-743	711-724
34	Apr 7	Chemiosmotic energy transduction	Chapter 24	743-747	724-728
35	Apr 9	ATP Synthase	Chapter 25	747-757	728-739
36	Apr 12	Efficiency of Oxidative Phosphorylation	Chapter 26	675-676	657-659
Apr 22 Final Examination (Start time 11:30 AM)					

5.2 Lab Schedule (Subject to Change)

LAB SCHEDULE-BIOC*2580 W'21		
Each lab will open on Monday at 9 am and the Lab Report will be due on Friday at 5 pm		
WEEK #	Dates	Activity
1	Jan 11-15	Intro Lab - Lab Safety and Micropipette exercise
2	Jan 18-22	No Labs
3	Jan 25-29	Lab 1- Separation and Identification of Amino Acids
4	Feb 1-5	No Labs
5	Feb 8-12	Lab 2- Separation and Quantification of Proteins
6	Feb15-19	Winter Break

LAB SCHEDULE-BIOC*2580 W'21		
7	Feb 22-26	Lab 3: Enzyme Kinetics
8	Mar 1-5	No Labs
9	Mar 8-12	Lab 4- Determination of Iodine number of Lipids
10	Mar 15-19	No Labs
11	Mar 22-26	Lab 5- Determination of Reducing sugars in Carbohydrates

6 Assessments

6.1 Grade Assessments

Form of Assessment	Weight of Assessment (% of final)	Due Date of Assessment	Course Content /Activity	Learning Outcome Addressed
Online Quiz #1	2.5%	January 23-29, 2021	Lectures 1-6	#1, 2, 8
Online Quiz #2	2.5%	February 6-12, 2021	Lectures 7-12	#2, 3, 8
Midterm	25%	March 6	Lectures 1-18	#1, 2, 3, 4, 8
Online Quiz #3	2.5%	March 13-19, 2021	Lectures 19-24	#5, 8

Form of Assessment	Weight of Assessment (% of final)	Due Date of Assessment	Course Content /Activity	Learning Outcome Addressed
Online Quiz #4	2.5%	March 27-April 1	Lectures 25-30	#5, 6, 8
Final Exam	40%	April 22, 2021 11:30 AM - 1:30 PM	Cumulative, with emphasis on lectures 19-36	#1-6, 8
Laboratories	25%	See Lab Schedule	Laboratory experiments and write-up	#7, 8

Lecture Component: 75%

Laboratory Component: 25%

Total: 100%

6.2 Note

Students must pass the Lecture component on its own AND the Laboratory component on its own to pass the course as a whole (i.e. students need to achieve an overall grade of at least 37.5/75 for the 4 quizzes and the 2 exams and a minimum of 12.5/25 for the laboratory). This means that a high laboratory mark cannot be used to secure a pass if the lecture component is failed or vice versa. In cases where this standard is not achieved, the final grades assigned will either be the calculated grade or 47%, whichever is less.

6.3 Lecture Component

LECTURE COMPONENT

ONLINE QUIZZES:

The online quizzes are meant to ensure that students keep up with and have a chance to assess their understanding of the lecture material. Although these assignments are online, **STUDENTS ARE EXPECTED TO ANSWER THE QUESTIONS BY THEMSELVES.** The goal

of the quizzes is to have students review and reflect on the material, and facilitate studying for the midterm and final exam in a lower-stakes format. As such, students will be given **three attempts** at the quiz over a period of one week. For each attempt, you will see your overall grade and the mark you received for each question (from which you can determine which questions you answered correctly and which you answered incorrectly) immediately after submitting the quiz. The highest attempt out of the 3 will be used in the overall grade calculation. The recommended time limit for each attempt is 1 hr. However, everyone will be given 120 min (2hrs) to complete each attempt (ie. Everyone is given Double Time to complete the quiz; no further adjustments will be made for student that are granted extra time for exams). Since the questions are randomly selected, **each attempt will have different questions** but on the same theme.

Access to grades, answers and feedback: Students will be granted access to the feedback and answers to the quiz questions on the day following the closing of the quiz. Questions about the grades must be made to the instructor within a period of one-week following that. **Please note that feedback, explanations or answers cannot be provided while the quiz is open.** Please email your questions regarding specific quiz questions **ONLY** after reviewing the marking scheme once it has been released.

Deferrals policy: The quiz cannot be extended beyond the one week period it is open as answers are set to be released immediately following the closure of each quiz. Students with medical or compassionate issues that **cover the entire one-week period the quiz is open** will be granted a changed mark weighting. The value of quizzes missed will be added to the value of the final exam. Please inform the instructor within **one week** of the end of the assignment deadline. As per university policy, verification of illness will not be required for the F20 semester. to Be sure you have access to a working computer with a stable Internet connection. **Technical problems are not grounds for a deferral.**

MIDTERM EXAM:

Date: March 6 (start 1:00 PM)

Midterm exam will be administered online through courselink quizzes. The midterm will be proctored via Respondus Lockdown Browser + Monitor. You will need access to a computer with a webcam, either built-in or external to complete the exams.

STUDENTS MUST NOTIFY THE INSTRUCTOR OF ANY ACADEMIC CONFLICTS BY Friday, January, 22. Academic conflicts are courses or labs that are scheduled at the exact same time.

Access to grades, answers and feedback: Students will be granted access to their grades and answers to the midterm once all exams have been graded. Questions about the grades must be made to the instructor within one week of the midterm being available for return.

Deferrals policy: Only medical or compassionate accommodations will be granted a missed midterm. There will be no alternate midterm dates. Please inform the instructor within **one**

week of the midterm date. If a missed midterm is granted the final exam will be reweighted to 65%. As per university policy, verification of illness will not be required for the W21 semester.

FINAL EXAM:

DATE: April 22, 2021 -- 11:30 AM to 1:30 PM

The final exam will be administered online through courselink quizzes. It will be proctored via Respondus Lockdown Browser + Monitor. You will need access to a computer with a webcam, either built-in or external to complete the exams.

This exam will **cover the entire course (lectures 1-36)**, with strong emphasis on the material covered after the midterm examination. A **metabolic chart** will be posted on Courselink and provided at the final examination. The chart shows chemical structures organized into metabolic pathways, but it does not show compound or enzyme names, reaction stoichiometries and mechanisms, etc. Students are expected to be familiar with these, as outlined in the Learning Outcomes for the course.

Technology in all exams: Students may use a numerical calculator with ln and log functions for exams. Advanced calculators, computers, tablets or smart phones may **not** be used.

6.4 What to do if you experience internet problems during a test!

1. **If you experience internet problems** or CourseLink problems during a Quiz:
 - Contact CourseLink Support immediately:
Phone: 519-824-4120 ext. 56939
Toll Free: 1-866-275-1478
Email: courselink@uoguelph.ca
 - Email your instructor explaining the difficulty and how long it took to resolve the problem. We may extend the quiz by the amount of time it took to get the problem solved with CourseLink.
2. **For Short System Problems:**
 - We may extend the deadline / access for the whole class

1. **For Longer System Problem:**

- We may reschedule a make-up test / exam for another time

6.5 Laboratory Component

LABORATORY COMPONENT

Laboratory sessions are designed to relate to the lecture content and to introduce students to proper scientific recording of data and analysis of results. The Labs will be conducted virtually and you will be able to see the recordings at your convenience.

Lab write-up submissions in the Dropbox:

Students missing **more than one lab submission without documentation** will not earn credit for the lab component of the course. Students missing **more than 2 laboratories, even with valid documentation (medical or compassionate), cannot pass the course**, and will earn a grade of 47% for the entire course.

Laboratory sessions begin the week of January 11 (see Laboratory Schedule)

Location:

Virtual via zoom on Courselink

Lab exemptions:

If you have earned a passing lab grade in a previous attempt at BIOC*2580 within the last 12 months, you may apply for a lab exemption. Send your request to bioc2580@uoguelph.ca (put *Lab exemption* on the Subject line). **You do not have a valid lab exemption unless you have received confirmation that it has been granted.**

Lab section number:

The last 3 digits on your class schedule are your section number; e.g. for BIOC*2580*0110, the section number is 110. Always put your section number in the subject line when you send and email regarding any lab issue.

Lab Manual:

The pdfs for each Lab will be posted on Courselink, so there is no Lab Manual to buy.

Lab TA:

Each section will be assigned a TA and her/his email will be posted. You should email your TA regarding any questions you have about the Lab write-up.

7 Course Statements

7.1 Themes

There are three main themes that run throughout this foundational course in biochemistry:

1. The principles of Physics and Chemistry can explain Biology.
2. The Structure and Function of biological molecules are inextricably connected.
3. Biochemistry is the link between biological Metabolism and its underlying Chemistry

7.2 Honour Code of Conduct

In this remote course, you agree to abide by the following code of conduct:

1. I will not engage in any other activities that will dishonestly improve my results or dishonestly improve or hurt the results of others.
2. On quizzes, midterms and final exam:
 1. **my answers will be my own**
 2. **I will not communicate with anyone else**
 3. **I will not consult outside resources or look up answers**
 4. **I will not share responses or questions with anyone during or after the quiz.**

This includes any official answer keys provided by the course instructors or Teaching Assistants.

It's simple; it's straightforward: please behave **honourably, appropriately**, and with academic **integrity** (regardless of the course being held online).

By enrolling and participating in this course, you agree to follow the above honour code of conduct.

7.3 Online Behaviour - Netiquette

When you are meeting together in a live online session, there are things to do and things not to do:

Things to do. These are good things to do in a remote class:

- Show up early. You can use the time to test your tech, chat with people, etc.
- Set a good tone with comments. Tone is more difficult to read online, so making an extra effort helps communicate effectively
- Turn **ON** your video (optional but encouraged) to help us remember that we are real people in the class!
- Stay on **mute**, except when speaking. Feedback is a challenge when there's background noise.
- Raise your hand in Zoom when you want to say something or ask a question and wait until others have finished their thought. That way, everyone is heard.
- Say your name when you speak. This is especially helpful in bigger groups or if people are joining on the phone.
- You can use the chat function to ask questions. Participants can answer each other. Remember that the session is being recorded.
- The classes will be recorded and posted on CourseLink so that people can participate asynchronously.

Things NOT to do. 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
- Sharing your user name and password
- Recording lectures without the permission of the instructor

7.4 Recording of Classes

Recordings of classes are solely for the use of the authorized student, and may not be **reproduced, edited** in whole or part, or **transmitted** to others, without the express written consent of the instructor.

Since some sessions are run synchronously on Zoom, students may be recorded during these sessions.

By enrolling in the course, unless explicitly stated and brought forward to their instructor, it is assumed that students agree to the possibility of being recorded during “live” (synchronous) course activities.

If a student prefers not to be distinguishable during a recording, they may:

1. turn off their camera
2. mute their microphone
3. edit their name (e.g., initials only) upon entry to each session
4. use the chat function to pose questions.

Students who express to their instructor that they, or a reference to their name or person, do not wish to be recorded may discuss possible alternatives or accommodations with their instructor.

7.5 In Case of a Zoom Interruption

If our live-streaming session goes down during class, stay in the session and check your email within 10 minutes for instructions. If you do not hear from us in 10 minutes, the internet is likely not working and the rest of that session will be **cancelled**.

We will be in touch through email and an announcement about how we will make up the session.

7.6 Statement on the use of animals:

No animals are used directly in the laboratory exercises for BIOC*2580. However it is in the nature of biochemistry that some enzymes or biochemical substances may be derived from animal sources. Efforts have been made to reduce the use of animal related products by using equivalent enzymes or substances derived from microbial or plant sources, but in some

cases it may be necessary to use these products

8 Department of Molecular and Cellular Biology

Statements

8.1 Academic Advisors

If you are concerned about any aspect of your academic program:

- Make an appointment with a program counsellor in your degree program. [B.Sc. Academic Advising](#) or [Program Counsellors](#)

8.2 Academic Support

If you are struggling to succeed academically:

- Learning Commons: There are numerous academic resources offered by the Learning Commons including, Supported Learning Groups for a variety of courses, workshops related to time management, taking multiple choice exams, and general study skills. You can also set up individualized appointments with a learning specialist. <http://www.learningcommons.uoguelph.ca/>
- Science Commons: Located in the library, the Science Commons provides support for physics, mathematic/statistics, and chemistry. Details on their hours of operations can be found at: <http://www.lib.uoguelph.ca/get-assistance/studying/chemistry-physics-help> and <http://www.lib.uoguelph.ca/get-assistance/studying/math-stats-help>

8.3 Wellness

If you are struggling with personal or health issues:

- Counselling services offers individualized appointments to help students work through personal struggles that may be impacting their academic performance. <https://www.uoguelph.ca/counselling/>
- Student Health Services is located on campus and is available to provide medical attention. <https://www.uoguelph.ca/studenthealthservices/clinic>
- For support related to stress and anxiety, besides Health Services and Counselling Services, Kathy Somers runs training workshops and one-on-one sessions related to stress management and high performance situations. <http://www.selfregulationskills.ca/>

8.4 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/index.html>. 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.

For more information regarding the Collection, Use and Disclosure of Personal Information policies please see the Undergraduate Calendar.
(<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/intro/index.shtml>)

9 University Statements

9.1 Email Communication

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

9.2 When You Cannot Meet a Course Requirement

When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons please advise the course instructor (or designated person, such as a teaching assistant) in writing, with your name, id#, and e-mail contact. The grounds for Academic Consideration are detailed in the Undergraduate and Graduate Calendars.

Undergraduate Calendar - Academic Consideration and Appeals
<https://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-ac.shtml>

Graduate Calendar - Grounds for Academic Consideration
<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

Associate Diploma Calendar - Academic Consideration, Appeals and Petitions
<https://www.uoguelph.ca/registrar/calendars/diploma/current/index.shtml>

9.3 Drop Date

Students will have until the last day of classes to drop courses without academic penalty. The deadline to drop two-semester courses will be the last day of classes in the second semester. This applies to all students (undergraduate, graduate and diploma) except for Doctor of Veterinary Medicine and Associate Diploma in Veterinary Technology (conventional and alternative delivery) students. The regulations and procedures for course registration are available in their respective Academic Calendars.

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

Graduate Calendar - Registration Changes

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/genreg-reg-regchg.shtml>

Associate Diploma Calendar - Dropping Courses

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

9.4 Copies of Out-of-class Assignments

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

9.5 Accessibility

The University promotes the full participation of students who experience disabilities in their academic programs. To that end, the provision of academic accommodation is a shared responsibility between the University and the student.

When accommodations are needed, the student is required to first register with Student Accessibility Services (SAS). Documentation to substantiate the existence of a disability is required; however, interim accommodations may be possible while that process is underway.

Accommodations are available for both permanent and temporary disabilities. It should be noted that common illnesses such as a cold or the flu do not constitute a disability.

Use of the SAS Exam Centre requires students to book their exams at least 7 days in advance and not later than the 40th Class Day.

For Guelph students, information can be found on the SAS website

<https://www.uoguelph.ca/sas>

For Ridgetown students, information can be found on the Ridgetown SAS website

<https://www.ridgetownc.com/services/accessibilityservices.cfm>

9.6 Academic Integrity

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 encourages academic integrity. 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.

Undergraduate Calendar - Academic Misconduct

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

Graduate Calendar - Academic Misconduct

<https://www.uoguelph.ca/registrar/calendars/graduate/current/genreg/index.shtml>

9.7 Recording of Materials

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

9.8 Resources

The Academic Calendars are the source of information about the University of Guelph's procedures, policies, and regulations that apply to undergraduate, graduate, and diploma programs.

Academic Calendars

<https://www.uoguelph.ca/academics/calendars>

9.9 Disclaimer

Please note that the ongoing COVID-19 pandemic may necessitate a revision of the format of course offerings and academic schedules. Any such changes will be announced via CourseLink and/or class email. All University-wide decisions will be posted on the COVID-19 website (<https://news.uoguelph.ca/2019-novel-coronavirus-information/>) and circulated by email.

9.10 Illness

The University will not normally require verification of illness (doctor's notes) for fall 2020 or winter 2021 semester courses. However, requests for Academic Consideration may still require medical documentation as appropriate.
