

MATH*2200 Advanced Calculus I

Fall 2021



(Revision 2: September 9, 2021)

For information on current safety protocols, follow these links: <https://news.uoguelph.ca/return-to-campuses/how-u-of-g-is-preparing-for-your-safe-return/>
<https://news.uoguelph.ca/return-to-campuses/spaces/#ClassroomSpaces>

Please note, these guidelines may be updated as required in response to evolving University, Public Health or government directives.

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.

1 INSTRUCTIONAL SUPPORT

1.1 Instructors

Kimberly M. Levere, Ph.D.

Office: MacN 539, ext. 56908

Email: klevere@uoguelph.ca

Office hours: Tuesdays 11:00am-12:00pm (remote)

Wednesdays 1:00pm-2:00pm (remote)

Due to the COVID-19 pandemic, I have been asked by the administration to hold my office hours remotely. I have had success with this in the past and look forward to finding creative ways to ensure that your questions are answered and that you feel fully supported! Here is the remote Zoom link that we'll be using: <https://zoom.us/j/97306944219>

1.2 Teaching Assistants

Connor Gregor

2 LEARNING RESOURCES

2.1 Course Website

Course material, news, announcements, and grades will be regularly posted to the MATH*2200 Course site. You are responsible for keeping up-to-date on this site.

2.2 Required Resources

K. Levere, *MATH*2200 – Advanced Calculus I Course Manual- 1st Edition*, available at the MacNaughton Book Store. This is the primary resource for the course and functions both as the textbook, and as a notebook that we will complete together in class as the course progresses. It can be purchased as a printed copy, or as a pdf. Please be sure that you have the current version, the 1st edition, (only available in the MacNaughton bookstore). Remember that this resource is protected by copyright and is not to be sold or redistributed in any form.

Stewart, Clegg and Watson, *Multivariable Calculus - version is 9E (Cengage)*.

ISBN: 978-0-357-04292-2

**Just in case you purchase this book somewhere other than from our bookstore: there are two similar books on the market by these authors. For this course, you want JUST the multivariable book (the other option is a book that includes both first year and multi-variable...called "Calculus" I do believe. It will be much more expensive, and you won't need half of it!)

2.3 Recommended Resources

Not applicable

2.4 Additional Resources

Lecture Information:

Due to the COVID-19 pandemic and the size of our class, I wanted to ensure an enjoyable but safe learning environment for everyone while limiting our risk. I am hoping that the structure I've selected promotes a sense of community and productive learning. Here is how I'm planning on delivering the course content:

1. Asynchronous Lecture Videos: In these videos we'll fill in your course manual together. Since I want these to be very focused, I have opted to record these ahead of time so that you can watch them on your own schedule (plus, you can rewind me and watch the videos more than once if you want). I will do my best to make this experience as close to what it would have been in a face-to-face setting.
2. Face-to-face Lecture Time: I specified one face-to-face time slot per week for our course simply to give us some time to work together. I also find that recorded lectures don't fill the 3 hours per week that you should be getting, so this additional time will certainly give you your money's worth! While the content of the course will be delivered in asynchronous lecture videos, this face-to-face time will give me a chance to talk about intricacies of the material, pitfalls, to do extra examples and to answer questions in real time. The idea is that you will watch and complete a specified set of videos ahead of this face-to-face time so that you already have your questions ready for me and can sort out anything that didn't make sense when you watched your lecture videos. I want you to feel supported and to have LOTS of time to ask questions and get help.

I will also use some of these face-to-face times for assessments (rather than scheduling tests on weekends or late on Friday nights).

** In response to the announcement made by the University of Guelph administration on August 31, 2021, I have elected to offer all face-to face components of this course also in synchronous form from September 9th, 2021 – September 28th, 2021. I made this decision in an effort to support those that are uncomfortable being face-to-face so soon after the vaccination mandate took effect. However, I also want to support students that are looking forward to getting back into the classroom and aren't feeling as anxious. I'm hoping that this hybrid approach gives everyone the choice to enjoy our course in a way that feels safe for them. On Thursdays during our scheduled class time, I will be present in our classroom to deliver the content face-to-face, but I will also broadcast our lecture over Zoom (I'll have one tablet capturing my face and hand gestures and another capturing what I am writing). I have tested this out and I think it should work well enough for the few lectures that we'll need it for (although I'll have to be careful to stay within the view of my camera! It isn't perfect, but it is a reasonable solution for the short time frame that we'll need it.) Synchronous lectures will not be recorded so you are expected to either attend the face-to-face offering or join us remotely on Zoom to hear this content. After September 28th, 2021 (once everyone will have had time to get their second dose of the vaccine) as per University guidelines, the course will run as it was originally scheduled as a face-to-face lecture on Thursdays with no remote option.

Link for remote Zoom lectures: <https://zoom.us/j/97306944219>

Lecture videos will be available via links on Courselink (housed in YouTube). In addition, completed lecture notes corresponding to each video will be uploaded to the Course website. This is not a substitute for lecture video attendance! I strongly recommend that you watch every lecture video as I feel that some things are better explained in words than in text. This structure is a bit dangerous if you aren't organized! To keep yourself up to date, I suggest scheduling fixed time each week for which you watch your lecture videos (just like a regular lecture time slot!). I have also created a "What Should I Be Doing" tab in Courselink that lists what is expected of you every week.

If at any time we are unable to conduct our face-to-face lecture time due to COVID-19 restrictions imposed by the university or government, scheduled face-to-face lectures will be conducted via Zoom at the same scheduled time (a link will be posted on CourseLink). Please ensure that you have a basic Zoom account (which is free!), a web camera and a microphone (perhaps these are built into your computer) so that you are able to participate. Should such a shut down occur, it is likely that we will also be required to conduct proctored assessments via Zoom as well. For this reason, it is particularly important that you have this equipment ready and functioning. This scenario will only be put into action if face-to-face instruction is shut down by the administration.

Disclaimer: Student Identity Disclosure in Recordings

The university has requested that I include the following disclaimer regarding recorded materials (even though my lectures are asynchronous, there may be a scenario in which I record an office hour or other group video which makes this relevant to us):

By enrolling in a course, unless explicitly stated and brought forward to their instructor, it is assumed that students agree to the possibility of being recorded during lecture, seminar or other “live” course activities, whether delivery is in-class or online/remote.

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.

Other: Practice tests, supplementary questions, and other resources may be posted to the Course website as needed. Again, it is important that you check regularly to keep up-to-date.

2.5 Communication & Email Policy

Major announcements will be posted to the course website. **It is your responsibility to check the course website regularly.** As per university regulations, all students are required to check their <mail.uoguelph.ca> e-mail account regularly: e-mail is the official route of communication between the University and its student.

2.6 Getting Help

My number one priority is to ensure that you are supported and have lots of opportunities to ask questions and get help! Here are some options for getting help in this course:

- Ask questions during the Thursday Face-to-face Lecture time, 8:30am-9:50am

- Come office hours. Don't ever hesitate to drop in, even if you think you are behind in your studying. Getting you caught up is ****exactly**** what those opportunities are there for!
- Post to the discussion board on Courselink. This is a great place to post your questions! I will check this often and respond as soon as I am able. I have even given you the option to post anonymously in case you are shy 😊 It is also a great way for you to help others if you see a question that someone else posts that you can help out with! This is one of the best ways to master a concept: by explaining it to someone else!
- Send me an email (klevere@uoguelph.ca). Since there are over 100 of you and only ONE of me, I would prefer to answer questions in a group forum (so that I can help more of you at once), but certainly for more personal queries, this is a great option. If you ask questions by email (or even in Courselink!), it would be extremely helpful for you to attach a picture of your work, so I can easily see where you might be stuck and be able to help you more quickly. I usually try to respond within a few hours. However, I get a lot of email from students and I need to make sure that I have the chance to help as many people as I can in the time I have! So be warned that if you send me many emails with various questions, it may take a day or two to get back to you.

3 ASSESSMENT

3.1 Dates and Distribution

	Scheme #1	Scheme #2
Quizzes (total of 2)	10% (5% each)	10% (5% each)
Warm up Test	10%	0%
Term Test 1**	20%	20%
Term Test 2**	20%	20%
Final Exam**	40%	50%

Your final grade will be calculated using the most favourable of the above grading schemes.

**You must receive at least 50% of the marks available, in total, on the term tests and final exam that are used to calculate your final grade. That is,

$$\frac{(\text{Total marks earned on term tests and exam})}{(\text{Total marks available on term tests and exam})} \geq 50\%$$

If you do not achieve this, your maximum possible final grade will be 48%, *no matter what grade you receive on the Written Assignment component*. Provided that you satisfy the above equation, your final grade will be calculated using the above listed grading scheme.

Considerations may be made according to the policies listed in Section 3.2.

For example: suppose that Kevin receives 20/30 on TT1, 5/25 on TT2 and 26/45 on the final. The above calculation for Kevin would be:

$$(20+5+26) \div (30+25+45)=0.51$$

Since this is greater than 0.50, Kevin is eligible to pass, and his grade will be calculated according to the weighted grading scheme listed above (including his assignment marks).

On the other hand, suppose that Luke receives 18/30 on TT1, 7/25 on TT2 and 20/45 on the final. Then for Luke:

$$(18+7+20) \div (30+25+45)=0.45$$

Since this is less than 0.5, Luke would be awarded a maximum grade of 48% (his grade would be calculated according to the weighted grading scheme above but would then be capped at 48%).

Your final grade will be calculated using the most favourable of the above grading schemes. In addition to the above schemes, you must pass at least one of Term Test 1, Term Test 2, or the Final Exam in order to be eligible to pass this course. Failure to do so will result in a final grade that is capped at 48%. Considerations may be made according to the policies listed in Section 3.2.

In-class quizzes: There will be 2 short quizzes held in class throughout the term (see schedule below). Each quiz is worth 5% and will cover approximately 2-3 weeks of lecture material. Quizzes will be short, closed-book, independent, 30-minute assessments that will test your understanding of current topics in the course. All quizzes will take place in-class, THRN*1200. Here is the schedule of dates:

Quiz 1: Thursday, October 28th, 2021 (Week 7).

Quiz 2: Thursday, November 25th, 2021 (Week 11).

Warm up Test: Thursday, September 30, 2021 (Week 3)

8:30am-9:50am (80 minutes to write)

Location: in-class, THRN*1200

Closed-book, closed resource, independent

Tests content from your first two Calculus courses as well as some Linear Algebra content that will be important in MATH*2200.

Term Tests:

Test 1: Thursday, October 14th, 2021 (Week 5)

8:30am-9:50am (80 minutes to write).

Location: in-class, THRN*1200

Closed-book, closed resource, independent

Covers Chapters 1-2 inclusive

Test 2: Thursday, November 11th, 2021 (Week 9)
8:30am-9:50am (80 minutes to write)
Location: in-class, THRN*1200
Closed-book, closed resource, independent
Covers Chapters 3-4 inclusive

Final Exam: Saturday, December 11, 2021
8:30am-10:30am (120 minutes to write)
Location: TBA
Closed-book, closed resource, independent
Cumulative

*Should face-to-face instruction be shut down at any point by the administration, any assessments completed during such a shutdown will be proctored via Zoom according to the schedule above. Please ensure that you have a working web camera should we need to run assessments in this way.

3.2 Course Grading Policies

Academic Consideration: When you find yourself unable to meet an in-course requirement because of illness or compassionate reasons, please advise the course instructor in writing, with your name, ID number, and e-mail contact. See the academic calendar for information on regulations and procedures for Academic Consideration:

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

Accommodation of Religious Obligations: If you are unable to meet an in-course requirement due to religious obligations, please email the course instructor at the start of the semester to make alternate arrangements. See the undergraduate calendar for information on regulations and procedures for Academic Accommodation of Religious Obligations:

<http://www.uoguelph.ca/registrar/calendars/undergraduate/current/c08/c08-accomrelig.shtml>

Missed term tests or quizzes: Missed quizzes and tests will receive a grade of 0%, unless you miss an assessment due to any of the above reasons and **bring it to the attention of the course instructor within 1 week of the assessment date in a written email**, in which case the weight of the missed assessment will be added to the final exam. There will be no makeup tests or quizzes.

Illness: Medical notes will not normally be required for singular instances of academic consideration, although students may be required to provide supporting documentation for multiple missed assessments or when involving a large part of a course (e.g.. final exam or major assignment).

Passing grade: In order to pass the course, you must receive a final grade of at least 50%. Additionally, in order to pass this course, you must receive at least 50% of the marks available

collectively, on the term tests and final exam that are used to calculate your final grade. If you do not achieve this, your maximum possible final grade will be 48%.

Group Work: You are encouraged to work together to learn the course material and complete For You to Try exercises. All quizzes, term tests and the final exam are individual assessments and must be completed independently.

4 AIMS, OBJECTIVES & GRADUATE ATTRIBUTES

4.1 Calendar Description

The topics covered in this course include infinite sequences and series, power series, tests for convergence, Taylor's theorem and Taylor series for functions of one variable, planes and quadratic surfaces, limits and continuity, differentiability of functions of two or more variables, partial differentiation, directional derivatives and gradients, tangent planes, linear approximation, Taylor's theorem for functions of two variables, critical points, extreme value problems, implicit function theorem, Jacobians, multiple integrals and change of variables.

Credit Weight: 0.5 **Department:** Mathematics & Statistics **Campus:** Guelph
Prerequisite: One of IPS*1510, MATH*1090, MATH*1210, or MATH*2080.

4.2 Course Aims

This course extends the ideas and concepts covered in a first Calculus course to multi-variable functions. We also extensively explore infinite sequences and series and their convergence. We explore more complex examples, explore the “why” of concepts (as well as the “how to”), and dig into more mathematical proofs of theoretical results. The main goals of the course are (1) to teach students the Calculus concepts listed in section 4.1 at a level that promotes a deep understanding and (2) to prepare students for future courses in mathematics that make express use of the concepts studied here.

4.3 Learning Objectives

At the successful completion of this course, the student will have demonstrated the ability to:

1. Understand the concept of convergence of a sequence or series and be able to apply a variety of methods for assessing this quality.
2. Be able to determine the domain of a multi-variable function, and understand the notions of range, level curves and traces of a surface.
3. Be able to assess when a function does and does not exist using a variety of techniques including uniqueness of limits, conjugate, factoring, common denominator, formal definition of the limit, and the Squeeze Theorem.
4. Calculate partial derivatives and understand their physical meaning. Be able to establish if a multi-variable function is differentiable at a point.

5. Have an understanding of the tangent plane to a surface at a point and use this tangent plane to approximate surfaces nearby.
6. Calculate partial derivatives involving the chain rule.
7. Understand the notion of a directional derivative and be able to calculate them.
8. Calculate the gradient vector and understand applications of this important mathematical construct.
9. Apply knowledge of derivative theory to find local and global extrema.
10. Understand the derivation of the method of Lagrange multipliers and use this method to solve constrained optimization problems.
11. Calculate double integrals over rectangular regions, including an understanding of Fubini's theorem.
12. Calculate double integrals over Type I and Type II bounded regions and understand how and when one can change the order of integration.
13. Understand the derivation of the change of variables theorem for multi-variable functions, including the definition and use of the Jacobian matrix.
14. Calculate double integrals by transforming to polar coordinates.

4.4 Instructor's Role and Responsibility to Students

As your instructor, I must:

1. Develop and deliver course material in a professional way that facilitates learning for a variety of students and learning styles;
2. Attend all lectures, filling in the Course Manual as we proceed in each lecture. We will provide completed course notes online regularly, but we strongly urge you to come to class. Bear in mind that most Tutorials will not use the Course Manual and these completed notes might not be provided to you.
3. Respond to you. This includes, as time permits, questions in lectures and lab tutorials, after classes, during office hours, or through email (where we reserve the right to reply within a timeframe of 1-2 days). You are more than welcome to contact me at any time through these means if you have questions or concerns about the course or the course material.
4. Evaluate you fairly, and fairly as compared to your peers, providing prompt feedback on your performance and justification for your grade. I must provide academic consideration, where appropriate, as described in Section 3.

4.5 Students' Learning Responsibilities

As a member of this class, you are expected to:

1. Take advantage of the learning opportunities provided during lectures;
2. Treat others with respect and dignity whenever you address them, in-class or online;
3. Genuinely try For You To Try problems in a timely manner, on your own time;
4. Seek help if you have tried the homework and are still having difficulty with the course content. This means contacting me (*not* just at the last minute!) and possibly considering other resources as I recommend them to you;
5. Check all grades against tests that have been returned to you, once they are posted to the Course website, to verify that the correct mark has been recorded; and
6. Notify me, as described in Section 3, in the case that there are missed tests/quizzes or academic conflicts that are known in advance. If illness, work, or extra-curricular activities are causing you to struggle, you are advised to keep us up-to-date on your progress, so that I can be more helpful to you.

5 TEACHING AND LEARNING ACTIVITIES

5.1 Timetable

Asynchronous, Recorded Lectures:

Video lectures will be recorded and delivered asynchronously. In order to keep you on task, I will ensure that I organize these videos according to the week that I intend them to be viewed. It is your responsibility to watch these videos on your own time as this content will not be delivered in any other format. My suggestion is that you choose 3 hours per week within your own schedule and commit to always working on video lectures. Additional time should be scheduled for completing practice problems for MATH*2200 and reviewing concepts. This is especially important if you tend to be a procrastinator...I don't want you to fall behind so please set up some regular, disciplined MATH*2200 time. Depending on the concept, videos will vary in length (and therefore quantity) each week. For instance, it may take 5 shorter videos to effectively complete one week of material, while another week of material may be doable in just 2 slightly longer videos.

Face-to-Face Lectures

Thursday	8:30am – 9:50am	THRN*1200
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In general, face-to-face lecture time will entail a synopsis of the previous week's content with fresh examples and time for students to ask questions and interact. Any additional time will be run as an "office hour" to help you with any questions or problems you've encountered in lecture videos or For You to Try problems. In assessment weeks, this face-to-face time slot will be used to complete term tests and quizzes.

Online Behaviour:

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
- Disrupting a class/office hour by discussing entirely unrelated content to that of MATH*1210.
- 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
- Making false claims about lost quiz answers or other assignment submissions
- Threatening or harassing a student or instructor online
- Discriminating against fellow students, instructors 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 username and password
- Recording lectures without the permission of the instructor

Any student that does not conduct themselves in an appropriate manner in any online lecture or office hour session will be issued a penalty of a 0.5% deduction on their final grade. This will apply each time inappropriate online conduct occurs. Please be kind to each other and conduct yourself with maturity and professionalism.

5.2 Lecture Schedule

(schedule is approximate and subject to change depending on time constraints)

Lectures (Week)	Lecture Topics	References
1	Sequences Some Well-Known Series Divergence Test	Chapter 1, Section 2.1, Section 2.2.1
2	The Integral Test Comparison Tests and Limit Comparison Test	Section 2.2.2 Section 2.2.3 Section 2.2.4
3	Alternating Series Test Ratio and Root Tests Power Series	Section 2.2.5 Section 2.2.6/7 Section 2.3.1
4	Manipulation of Power Series, Taylor and MacLaurin Series	Section 2.3.2 Section 2.4
5	Multi-variable Functions Limits & Continuity of Multi-variable Functions	Section 3.1 Section 3.2
6	The Squeeze Theorem for Multi-variable Functions Partial Derivatives & Physical Interpretation	Section 3.2 Section 4.1
7	Tangent Planes and Linear Approximation	Section 4.2.1/2

	Differentiability	Section 4.2.3
	The Chain Rule	Section 4.3
8	Implicit Function Theorem	Section 4.3
	The Directional Derivative	Section 4.4
	The Gradient Vector	Section 4.5
9	Critical Points and Local Extrema	Section 5.1
	Curve Sketching	Section 5.2
10	Global (Absolute) Extrema & Optimization	Section 5.3
	Lagrange Multipliers	Section 5.4
11	Double Integrals Over Rectangular Regions	Section 6.1
	Double Integrals Over General Bounded Regions	Section 6.2.1
	Changing the Order of Integration	Section 6.2.2/3
12	Change of Variables for Multi-variable Functions	Section 6.3.1/2
	Double Integrals in Polar Coordinates	Section 6.3.3

5.3 Other Important Dates

First day of classes: Thursday, September 9th, 2021.

Thanksgiving: Monday, October 11th, 2021 (no classes)

Fall Study Day: Tuesday, October 12th, 2021 (no classes)

Last day of classes: Friday, December 3rd, 2021.

Drop Date: Courses that are one semester long must be dropped by the end of the last day of classes (**Friday, December 3rd, 2021**); two-semester courses must be dropped by the last day of the add period in the second semester. The regulations and procedures for [Dropping Courses](#) are available in the Undergraduate Calendar.

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

Course Evaluation Information: Near the end of the term, you will be given the opportunity to evaluate your instructor and provide comments regarding your experience. The evaluations for this class will be done in-class. Your instructor will inform you of when these are to take place.

6 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.

6.1 Resources

The Academic Misconduct Policy is detailed in the Undergraduate Calendar:

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

A tutorial on Academic Misconduct produced by the Learning Commons can be found at:

<http://www.academicintegrity.uoguelph.ca/>

7 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.

More information: www.uoguelph.ca/sas

8 RECORDING OF MATERIALS

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

Posted online videos and course notes are the property of the instructor and are not to be otherwise disseminated beyond this course.

9 RESOURCES

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

<http://www.uoguelph.ca/registrar/calendars/index.cfm?index>

10 MENTAL HEALTH RESOURCES

One out of every five students in Canada experiences some sort of mental health issue at some point in their academic career. If you find yourself facing a mental health crisis, or just need to talk to someone, please consider taking advantage of one of the following resources available to University of Guelph students:

Counselling Services: Visit the Counselling Services website (<https://wellness.uoguelph.ca/counselling>) to get information on resources available to you, both online and in-person. You can also visit them at Health Services (J.T. Powell Building, ext 53244) where they offer individual and group counselling sessions by appointment or walk-in.

Student Support Network: is located in the Wellness & Education Promotion Centre in the J.T. Powell Building and offers confidential, peer-based, drop-in support.

Good2Talk: ([1-866-925-5454](tel:1-866-925-5454)) is a free, 24/7 student hotline that provides professional counselling and referrals for mental health, addictions and well-being.

Here 24/7: ([1-844-437-3247](tel:1-844-437-3247)) specializes in assessment, referral and appointment booking and is available 24/7 for crisis support.

You are not alone and you will not be judged for asking for help.
