

Calculus 1301A – Calculus II

Summer Days 2023

Course Outline

1. Course Information

Course Name: Calculus II
Course Number: CALC 1301A
Academic Term: SU23

Prerequisites: A minimum mark of 55% in one of [Calculus 1000A/B](#), [Calculus 1500A/B](#), [Numerical and Mathematical Methods 1412A/B](#), the former Applied Mathematics 1412A/B.

Antirequisites: [Calculus 1501A/B](#), [Numerical and Mathematical Methods 1414A/B](#), the former Applied Mathematics 1414A/B, the former Applied Mathematics 1413.

Unless you have either the requisites for this course or written special permission from your Dean to enroll in it, you may be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites.

2. Your instructor

Dr. Natalia Kiriushcheva

Email: nkiriush@uwo.ca

Office hours: will be run via Zoom meetings by appointment.

Students must use their Western (@uwo.ca) email addresses when contacting their instructors and put “**CALC 1301A**” in the subject line in addition to other identifiers. Remember to check announcements on our OWL page before contacting your instructor.

Section	Dates	Time	Location
LEC 001	M/Tu/W/Th/F	11:00 am – 1:00 pm	Zoom meetings

Extra Help: The Mathematics Department runs in-person and virtual help centres. During the summer, our virtual help centre on MS Teams will be open on Mondays, Wednesdays, and Fridays until July 31st for free drop-in help – no appointments are necessary. The help centres are staffed by graduate students from the department of mathematics.

Virtual Hours:

MONDAYS: 9 am - 10:30 am and 4 pm - 6:30 pm.

WEDNESDAYS: 3 pm - 6:30 pm.

FRIDAYS: 9 am - 10:30 am and 4 pm - 6 pm.

For more information – including a link to the virtual help centre – please visit:

https://www.math.uwo.ca/undergraduate/current_students/Help%20Centre.html

3. Course Description

This course continues from Calculus 1000A/B and 1100A/B. We will cover selected topics from chapters 3-7 of Calculus (OpenStax) Volume 2: arc length, techniques of integration (integration by parts, partial fractions, special substitutions, etc.); series, Taylor series, parametric curves, arc length, first order differential equations with applications. See the list of suggested Exercises on our OWL page for more details.

Learning Outcomes

At the end of the course, a student should be able to

1. Integrate functions using several techniques such as integration by parts, partial fractions, inverse trig substitution, etc.
2. Sketch parametric or polar curves.
3. Compute area of a region formed by parametric or polar curves.
4. Determine the convergence or divergence of a given series.
5. Write a Taylor series or a McLaurin series of a differentiable function.
6. Formulate a problem in terms of a differential equation and solve it.

Tentative Course Content Schedule

	week	textbook sections	notes
1	July 3 - 7	3.1, 3.2, 3.3, 3.4	
2	July 10 - 14	3.5.1, 3.7, 5.1, 5.2, 5.3.1	Omit 3.5.2 and 3.6.
3	July 17 - 21	5.3.2, 5.4, 5.5, 5.6, 6.1, 6.2	Omit 5.3.3

	July 22		Midterm Exam on Saturday, July 22, 10:00 am - 12:00 pm, covering up to and including 6.2.
4	July 24 - 28	6.3, 6.4.1, 6.4.2, 6.4.3	Omit 6.4.4 and 6.4.5.
5	July 31 - Aug 4	7.1, 7.2.1, 2.4.1, 2.4.2	In 7.2, <i>areas</i> and <i>surface areas</i> are not covered.
6	August 7 - 11	7.3, 7.4, 4.1, 4.3, 4.5	
	August 14 - 15		The examination period.

Minor adjustments to the above plan may be made as the course progresses.

Other Important Dates

Classes begin: July 3, 2023.

Last day to drop this course without penalty: July 17, 2023.

Classes end: August 11, 2023.

Exam Period: August 14 - 15, 2023.

4. Course Materials

Required Text:

Calculus: Volume 2, by Gilbert Strang and Edwin “Jed” Herman (OpenStax, 2016) – Access for free at <https://openstax.org/details/books/calculus-volume-2>

Students are responsible for checking the course OWL site (<http://owl.uwo.ca>) on a regular basis for news and updates. This is the primary method by which information will be disseminated to all students in the class.

Any additional or supplementary course material will be posted to OWL: <http://owl.uwo.ca>.

If students need assistance with the course OWL site, they can seek support on the OWL Help page. Alternatively, they can contact the Western Technology Services Helpdesk. They can be contacted by phone at 519-661-3800 or ext. 83800.

Technical Requirements

Gradescope (<https://www.gradescope.ca/>) may be used as a grading platform for some written work (including the midterm) in the course. A free account will be created on your behalf, although you will be required to verify the account and change the password during the first weeks of class. Details regarding the set-up of your account and the submission requirements for your written work will be posted on OWL. It is the responsibility of the student to ensure their homework assignments are submitted in the correct format (PDF or PNG.) Submitting work in an improper format may result in your work not being graded, and this cannot form the basis of a regrade request.

Additionally, students will need:

- a laptop or computer;
- a stable internet connection;
- a working microphone and webcam;
- to have installed recent versions of Chrome AND Firefox browsers, a pdf reader, and Zoom on their computer;
- a device for scanning (either a scanner or an app that can be used in conjunction with your device's camera).

5. Methods of Evaluation

A list of suggested exercises from the text will be provided in OWL to supplement the weekly lectures.

The overall course grade will be calculated as listed below:

Assessment	Format	Weighting	Date
Homework Assignments	Online	Assessments totaling 15% of final grade	Schedule of assignment deadlines will be available on the course OWL site.
Online Quizzes	Online	Quizzes totaling 5%	6 quizzes in total, 5 the best will be counted
Midterm	Online	30%	Scheduled for July 22, 10:00 am - 12:00 pm
Final Exam	Online	50%	TBA (3 Hours)

- Virtual proctoring will be employed on the midterm test and the final exam.

- The midterm is 120 minutes in duration and will consist of a mixture of short answer and multiple-choice-style questions. *This is a closed book test. No notes, calculators, or other aids will be permitted.*
- For multiple choice components of tests and the exam: use may be made of software to check for unusual coincidences in answer patterns that may indicate academic integrity violations.
- The use of calculators and communication devices during the tests and final exam is prohibited.
- Missing a quiz, test, the final exam, or the due date of a submitted homework assessment will result in a grade of zero unless appropriate permission is sought and granted. In that case, your mark may be re-weighted, or a makeup evaluation may be arranged.
- The make-up midterm is tentatively scheduled for July 24, 2:00 pm – 4:00 pm.
- The final exam will be cumulative, 180 minutes in duration, and will consist of a mixture of short answer and multiple-choice-style questions. *This will be a closed book exam. No notes, calculators, or other aids will be permitted.*

Note: Your instructor reserves the right to seek additional clarification, via emails or Zoom meetings, about any submitted work as a part of the assessment. In particular, a suspicious activity or a violation report given by the Proctortrack will be a reason for a follow-up Zoom meeting after the midterm test and the final examination. A failure to attend such a meeting or a failure to demonstrate adequate knowledge that supports your performance may result in a significant decrease of the corresponding assessment score, up to zero.

Click [here](#) for a detailed and comprehensive set of policies and regulations concerning examinations and grading. The table below outlines the University-wide grade descriptors.

A+	90-100	One could scarcely expect better from a student at this level
A	80-89	Superior work which is clearly above average
B	70-79	Good work, meeting all requirements, and eminently satisfactory
C	60-69	Competent work, meeting requirements
D	50-59	Fair work, minimally acceptable
F	below 50	Fail

Professionalism and Privacy

Western students are expected to follow the [Student Code of Conduct](#). Additionally, the following expectations and professional conduct apply to this course:

- Students are expected to follow online etiquette expectations provided on OWL.
- All course materials created by the instructor(s) are copyrighted and cannot be sold/shared.
- Recordings are not permitted (audio or video) without explicit permission.
- Permitted recordings are not to be distributed.
- Students will be expected to take an academic integrity pledge before some assessments.
- All recorded sessions will remain within the course site.

6. Student Absences

Western Academic Policies and Statements

Absence from Course Commitments

[Policy on Academic Consideration for Student Absences](#)

In the interest of the health and safety of students and health care providers, you are no longer required to seek a medical note for absences this term. If you are unable to meet a course requirement due to illness you should use the [Illness Reporting Tool](#). This tool takes the place of the need to submit a medical note and the Self-Reported Absence System formally used by undergraduate students.

Remote Proctoring Statement

Tests and examinations in this course will be conducted using the remote proctoring service Proctortrack. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data) and the session will be **recorded**. More information about this remote proctoring service is available in the Online Proctoring Guidelines at the following link:

<https://www.uwo.ca/univsec/pdf/onlineproctorguidelines.pdf>

Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. Information about the technical requirements are available at the following link:

<https://www.proctortrack.com/tech-requirements/>

Academic Consideration for Student Absences

Students who experience an extenuating circumstance (illness, injury or other extenuating circumstance) sufficiently significant to temporarily render them unable to meet academic requirements may submit a request for academic consideration through the following routes:

- (i) For work worth less than 10% of the total course grade (a homework assignment, for example) your LEC instructor is empowered to grant academic considerations without the need to contact counselling. To seek accommodations for work totaling less than 10% of your course grade please send an email to your LEC instructor in a timely manner.
- (ii) For medical absences, submitting a Student Medical Certificate (SMC) signed by a licensed medical or mental health practitioner to the Academic Counselling office of their Faculty of Registration.

- (iii) Submitting appropriate documentation for non-medical absences to the Academic Counselling office in their Faculty of Registration.
- (iv) For work totalling 10% or more of the final course grade, **you must provide valid medical or supporting documentation to the Academic Counselling Office of your Faculty of Registration as soon as possible.**

For further information, please consult the University's medical illness policy at https://www.uwo.ca/univsec/pdf/academic_policies/appeals/accommodation_medical.pdf. The Student Medical Certificate is available at https://www.uwo.ca/univsec/pdf/academic_policies/appeals/medicalform.pdf.

Missed assessments can only be excused through one of the mechanisms above. In all cases, students are required to contact their instructors within 24 hours of the end of the period covered, unless otherwise instructed in the course outline.

Students should also note that individual instructors are not permitted to receive documentation directly from a student, whether in support of an application for consideration on medical grounds, or for other reasons. **All documentation required for absences must be submitted to the Academic Counselling office of a student's Home Faculty.**

Accommodated Evaluations

Missing a test or the due date of a submitted homework assessment will result in a grade of zero unless appropriate permission is sought and granted. In the case of quizzes and homework assignments and appropriate accommodation, your mark will be re-weighted to exclude the missed assessment. In the case of a missed midterm, a makeup test will be arranged. If a student misses a term test and the corresponding makeup test and has appropriate permission for both, then the final exam will be re-weighted to include the weight of the missed term test.

Absences from Final Examinations

If you miss the Final Exam, please contact the Academic Counselling office of your Faculty of Registration as soon as you are able to do so. They will assess your eligibility to write the Special Examination (the name given by the University to a makeup Final Exam).

You may also be eligible to write the Special Exam if you are in a "Multiple Exam Situation" (e.g., more than 2 exams in 23-hour period, more than 3 exams in a 47-hour period).

If a student fails to write a scheduled Special Examination, the date of the next Special Examination (if granted) normally will be the scheduled date for the final exam the next time this course is offered. The maximum course load for that term will be reduced by the credit of the course(s) for which the final examination has been deferred. See the Academic Calendar for details (under "Special Examinations.")

7. Accommodation and Accessibility

Religious Accommodation

When a course requirement conflicts with a religious holiday that requires an absence from the University or prohibits certain activities, students should request accommodation for their absence in writing at least two weeks prior to the holiday to the course instructor and/or the Academic Counselling office of their Faculty of Registration. Please consult University's list of recognized religious holidays (updated annually) at <https://multiculturalcalendar.com/ecal/index.php?s=c-univwo>.

Accommodation Policies

Students with disabilities are encouraged to contact Accessible Education, which provides recommendations for accommodation based on medical documentation or psychological and cognitive testing. The policy on Academic Accommodation for Students with Disabilities can be found at:

[https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic Accommodation_disabilities.pdf](https://www.uwo.ca/univsec/pdf/academic_policies/appeals/Academic_Accommodation_disabilities.pdf).

8. Academic Policies

The website for Registrarial Services is <http://www.registrar.uwo.ca>.

In accordance with policy,

https://www.uwo.ca/univsec/pdf/policies_procedures/section1/mapp113.pdf,

the centrally administered e-mail account provided to students will be considered the individual's official university e-mail address. It is the responsibility of the account holder to ensure that e-mail received from the University at his/her official university address is attended to in a timely manner.

The use of calculators and other electronic devices during the term tests or final exam is prohibited.

Scholastic offences are taken seriously and students are directed to read the appropriate policy, specifically, the definition of what constitutes a Scholastic Offence, at the following Web site:

http://www.uwo.ca/univsec/pdf/academic_policies/appeals/scholastic_discipline_undergrad.pdf.

Computer-marked multiple-choice tests and exams may be subject to submission for similarity review by software that will check for unusual coincidences in answer patterns that may indicate cheating.

In the event of a health lock-down tests and examinations in this course will be conducted using a remote proctoring service. By taking this course, you are consenting to the use of this software and acknowledge that you will be required to provide **personal information** (including some biometric data)

and the session will be **recorded**. Completion of this course will require you to have a reliable internet connection and a device that meets the technical requirements for this service. More information about this remote proctoring service, including technical requirements, is available on Western's Remote Proctoring website at:

<https://remoteproctoring.uwo.ca>.

9. Support Services

Please visit the Science & Basic Medical Sciences Academic Counselling webpage for information on adding/dropping courses, academic considerations for absences, appeals, exam conflicts, and many other academic related matters: <https://www.uwo.ca/sci/counselling/>.

Students who are in emotional/mental distress should refer to Mental Health@Western (<https://uwo.ca/health/>) for a complete list of options about how to obtain help.

Western is committed to reducing incidents of gender-based and sexual violence and providing compassionate support to anyone who has gone through these traumatic events. If you have experienced sexual or gender-based violence (either recently or in the past), you will find information about support services for survivors, including emergency contacts at https://www.uwo.ca/health/student_support/survivor_support/get-help.html.

To connect with a case manager or set up an appointment, please contact support@uwo.ca.

Please contact your course instructor if you require lecture or printed material in an alternate format or if any other arrangements can make this course more accessible to you. You may also wish to contact Accessible Education at http://academicsupport.uwo.ca/accessible_education/index.html if you have any questions regarding accommodations.

Learning-skills counsellors at the Student Development Centre (<https://learning.uwo.ca>) are ready to help you improve your learning skills. They offer presentations on strategies for improving time management, multiple-choice exam preparation/writing, textbook reading, and more. Individual support is offered throughout the Fall/Winter terms in the drop-in Learning Help Centre, and yearround through individual counselling.

Western University is committed to a thriving campus as we deliver our courses in the mixed model of both virtual and face-to-face formats. We encourage you to check out the Digital Student Experience website to manage your academics and well-being: <https://www.uwo.ca/se/digital/>.

Additional student-run support services are offered by the USC, <https://westernusc.ca/services/>.