

## MATH 1700 Calculus 2 Fall 2018

---

**A01:** MWF 8:30 am – 9:20 am  
**Instructor:** *Dr. E. Schippers*  
**Office:** 528 Machray Hall  
**Email:** Eric.Schippers@umanitoba.ca

**A04:** MWF 2:30 pm – 3:20 pm  
**Instructor:** *Dr. S. Da Silva*  
**Office:** 450 Machray Hall  
**Email:** sergio.dasilva@umanitoba.ca

**A02:** TR 10:00 am – 11:15 pm  
**Instructor:** *Dr. Yang Zhang*  
**Office:** 538 Machray Hall  
**Email:** Yang.Zhang@umanitoba.ca

**D01:**  
**Instructor:** *Dr. S. Kalajdziewski*  
**Email:** Sasho.Kalajdziewski@umanitoba.ca

**A03:** MWF 9:30 am – 10:20 pm  
**Instructor:** *Dr. M. Szesztopalow*  
**Office:** 429 Machray Hall  
**Email:** Michael.Szesztopalow@umanitoba.ca

**WEBSITE:** The general website for the course is

<https://www.math.umanitoba.ca/courses/math-1700/fall-2018/>

This website is common to all sections and contains general information all sections should be aware of. However, **please check with your instructor to see if they will be running a website designed specifically for your section.**

**OFFICE HOURS:** will be announced by your instructor.

<b>IMPORTANT DATES</b>	<b>Last day to register:</b>	Sep. 19, 2018
	<b>Last day for voluntary withdrawal (with no refund):</b>	Nov. 19, 2018

**CALCULATORS:** Calculators or other electronic devices **cannot** be used for calculations during assignments (D01 only), quizzes (A01-A04 only), tests or exams. **Any reference materials cannot** be used during quizzes, tests or exams.

	<b>FINAL EXAMINATION</b>	<b>60%</b>
	<b>MIDTERM EXAMINATION</b>	<b>30%</b>
<b>GRADE COMPONENTS:</b>	<b>QUIZZES (A01-A04) OR ASSIGNMENTS (D01)</b>	<b>10%</b>

Note: Re-weighting of final grade or make-ups will not be considered for poor performance on any assessment.

**TUTORIALS/QUIZZES (A01-A04 ONLY):** Each lecture section is divided into a number of tutorial sections - a smaller number of student where you get a chance to see more examples worked out and to work on problems under the supervision of a teaching assistant who knows the subject. As with the lectures, you can greatly increase the effectiveness of the tutorials by preparing for them: If you are aware of specific difficulties before you go into the tutorial, you are more likely to get them solved. There will be five quizzes given in the tutorials (during the last 25 minutes of the tutorial session), approximately one every two weeks. The quiz grade will be calculated using the best 4 out of 5 quizzes. Make-up tests for missed quizzes are **not available**.

**ASSIGNMENTS (D01 ONLY):** Four assignments will be assigned during the term. The assignments are due at 4:00pm on **Oct. 4, Oct. 25, Nov. 19 and Dec. 3**

No late assignments are accepted except for extreme circumstances. Assignments will be posted at least two weeks ahead of time and therefore delays formed by waiting until the last minute will not receive much sympathy. It is strongly recommended to submit the assignment well before the 11:59pm due time in case of internet connectivity or other issues which will not be accommodated.

The assignments must be submitted in the dropbox on UMLearn following the instructions under "How to Submit." Assignments must be submitted as **One PDF File**.

**Assignments are to be done independently.**

Failure to follow these instructions will result in the assignment not being marked and a score of 0 being recorded.

**MIDTERM EXAMINATION:** The midterm exam will be held on **October 30, 2018 from 5:45 p.m - 7:00 p.m.** A make-up will NOT be scheduled for students missing the midterm exam. Students who miss the midterm for a medical or compassionate reason (supporting evidence is needed) should contact the instructor within 48 hours of the midterm (email is acceptable). In this case, the weight of the midterm exam will be transferred to the final exam. Otherwise a mark "zero" will be given.

(For D01) Students who live in Winnipeg are required to write the midterm examination at the UM Fort Garry Campus. A location on campus will be posted in UM Learn closer to the date. Students who live outside of Winnipeg are required to take the midterm examination using a Virtual Proctoring Service. The online midterm examination will be posted on the course website.

Remote proctored exams cannot be written in a public venue. Students must write their exams in a private room that contains all equipment needed for the exam (printer, scanner, webcam, etc.). Detailed information regarding the invigilation process will be available in UM Learn.

**FINAL EXAMINATION:** The date, time, and location of a **2-hour-long** final examination will be set and published by the Registrar's Office. Students are reminded that they must remain available until all examination and test obligations have been fulfilled. The exam period is December 10-21, 2018. Students who miss the final exam should promptly contact their home faculty to discuss possible deferral arrangements. The instructor can NOT circumvent this process.

(For D01) Students needing to write at an off -campus location must declare a location by the specified deadline date (see off -campus declaration and policy under Student Resources on course homepage). Students writing at the UM Fort Garry campus do not need to declare an exam location.

**FINAL GRADES:** numbers will be converted to letter grades in such a way that the following minima will apply:

<b>Letter</b>	<b>Minimum Percentage to Guarantee</b>	<b>Final Grade Point</b>
A+	95	4.5
A	85	4.0
B+	78	3.5
B	72	3.0
C+	66	2.5
C	60	2.0
D	51	1.0

**STUDENTS WITH DISABILITIES** should contact Student Accessibility Service (see Schedule A, which is posted in UMLearn).

**TEXT:** James Stewart, *Calculus: Early Transcendentals*, 8th edition (full version) or 7th edition (Metric international version), Brooks/Cole with Student Solutions Manuals

**OPTIONAL:** A copy of past midterm and final exams is available in the Bookstore.

**COURSE DESCRIPTION:** Theory, techniques and applications of integration, parametric curves and polar coordinates.

### Course Outline and Suggested Homework Exercises

Section	Topic	Suggested Homework
§4.4	L'Hopital's rule	1-3, 7-66 ( <b>8-68</b> )
§5.1	Areas and Distances	3-5, 19-23 ( <b>21-25</b> )
§5.2	The Definite Integral	1-5, 17-20, 35-40.
§5.3	The Fundamental Theorem of Calculus	3-41, 55-59( <b>59-63</b> )
§5.4	Indefinite Integrals	1-18, 21-43.
§5.5	The Substitution Rule	1-39, 53-69.
§6.1	Areas between Curves	1-27.
§6.2	Volumes (general: discs and washers)	1-34, 47, 49, 55-59.
§6.3	Volumes (cylindrical shells)	3-20, 37-47.
§1.6( <b>1.5</b> )	Inverse Trig Functions	63-71.
§3.5	Derivatives of Inverse Trig Functions	49-60
§7.1	Integration by Parts	1-41, 61, 63.
§7.2	Trigonometric Integrals	1-49, 56, 61, 63.
§7.3	Trigonometric Substitution	1-30.
§7.4	Partial Fractions/Rational Functions	1-40, 47-50, 57.
§7.5	Strategies for Integration	1-82.
§7.8	Improper Integrals	1-34, 41, 49-55, 57.
§8.1	Arc Length	1-13 ( <b>1-15</b> ).
§8.2	Surface Area	1-14 ( <b>1-16</b> ).
§10.1	Curves Defined by Parametric Equations	1-16, 19, 21.
§10.2	Parametric Curves	1-6, 11-16, 29, 37-44, 57-62
§10.3	Polar Coordinates	1-25, 29-42, 55-64.
§10.4	Arc length (polar)	1-8, 17-28, 45, 48.

Remarks: This is for both the 7th and the 8th editions. For example, in section 5.1, 19-23 (**21-25**) means: 19-23 in the 7th edition and 21-25 in the 8th edition.

## Living with Mathematics:

Learning mathematics is a lot like building a house. A strong foundation is needed to produce a sturdy structure, while a weak foundation will quickly expose any structural deficiencies. In much the same way, you will require a good grounding in high school mathematics if your study of MATH 1700 is to be successful.

**YOU CANNOT LEARN MATHEMATICS BY CRAMMING AT THE END OF TERM.** It is just not that kind of subject; it involves ideas and computational methods which cannot be learned without practice. By way of an analogy, how many athletes do you know who do well in contests by training for only a few days in advance?

**QUESTIONS:** Do not be troubled if you have questions, because everyone does. Some have less, some have more, but in any case you can bet that if you have a question, someone else probably has the same one. Here are some ways to get answers to questions.

1. **Study your textbook.** (This may seem pretty obvious, but people do not always think of it.)
2. **Go to your professor** during their office hours, or if that is not possible, arrange another time you can meet with them. You will find them quite willing to help.
3. **Talk** the problem out with other students. In this sort of exchange, both parties usually benefit. So, if someone asks you a question, do not brush them off because it might waste your time. If you can solve their problem, you may well learn in the process.
4. **Form** study groups by identifying 3-5 classmates with whom you can study weekly.
5. **Go to the Mathematics Help Centre** by yourself or collectively, with your study group. This is located in Room 412 Machray Hall. Its purpose is to provide a place where students can get answers to specific mathematical problems related to their course. The hours of operation will be posted on the door.

**ONE CAUTION: DO NOT EXPECT ANYONE TO RE-TEACH LARGE CHUNKS OF THE COURSE.** It is **your responsibility** to keep up with course material.

The midterm and final exam will be marked electronically for ease of marking and returning to students using a marking tool called Crowdmark. Please see the statement below.

## **Statement on Crowdmark**

Your personal information is being collected under the authority of The University of Manitoba Act. It will be used for the purposes of grading papers and providing feedback to students. Personal information will not be used or disclosed for other purposes, unless permitted by The Freedom of Information and Protection of Privacy Act (FIPPA). The

University of Manitoba has taken steps to ensure that its agreement with Crowdmark, Inc. for services provided by the Crowdmark application is in compliance with FIPPA. Please be aware that information held by Crowdmark Inc. may be transmitted to and stored on servers outside of the University of Manitoba, or Canada. The University of Manitoba cannot and does not guarantee protection against the possible disclosure of your data including, without limitation, against possible secret disclosures of data to a foreign authority in accordance with the laws of another jurisdiction. If you have any questions about the collection of personal information, contact the Access and Privacy Office (tel. 204-474-9462), The University of Manitoba, 233 Elizabeth Dafoe Library, Winnipeg, Manitoba, Canada, R3T 2N2.

## **Statement on Academic Dishonesty**

The Department of Mathematics, the Faculty of Science and the University of Manitoba all regard acts of academic dishonesty in quizzes, tests, examinations or assignments as serious offences and may assess a variety of penalties depending on the nature of the offence.

Acts of academic dishonesty include bringing unauthorized materials into a test or exam, copying from another student, plagiarism and examination personation. Students are advised to read section 7 (Academic Integrity) and section 4.2.8 (Examinations: Personations) in the General Academic Regulations and Requirements of the current Undergraduate Calendar. Note, in particular, that cell phones and pagers are explicitly listed as unauthorized materials, and hence may not be present during tests or examinations.

Penalties for violation include being assigned a grade of zero on a test or assignment, being assigned a grade of "F" in a course, compulsory withdrawal from a course or program, suspension from a course/program/faculty or even expulsion from the University. For specific details about the nature of penalties that may be assessed upon conviction of an act of academic dishonesty, students are referred to University Policy 1202 (Student Discipline Bylaw) and to the Department of Mathematics policy concerning minimum penalties for acts of academic dishonesty.

All students are advised to familiarize themselves with the Student Discipline Bylaw, which is printed in its entirety in the Student Guide, and is also available on-line or through the Office of the University Secretary. Minimum penalties assessed by the Department of Mathematics for acts of academic dishonesty are available on the Department of Mathematics web-page.