

MATH 111 - Calculus II

Section 003

Winter 2021

General information

Instructor: Martin Frankland

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Office: CW 307.17

Office hours: Tuesday 1-2 PM, Wednesday 3-4 PM, Thursday 2-3 PM, or by appointment. The Zoom link is posted on UR Courses.

Lectures: MWF 11:30 - 12:20 on Zoom. The link is posted on UR Courses.

Tutorials: Mondays 10:30 - 11:20 AM on Zoom.

Textbook: A free coursebook is available on UR Courses.

The book *Calculus*, 8th Edition, by James Stewart is **optional** and may be used as additional reference.

Lab manual: A free lab booklet is available on UR Courses. It contains practice questions and answers, some of which will be worked through in your tutorials.

Prerequisite: MATH 110, or MATH 103 with a grade of at least 80%.

UR Courses: <https://urcourses.uregina.ca/>

This site will contain announcements, additional course material, and solutions to selected problems. The site is updated throughout the semester, so please check back regularly.

Course outline

MATH 111 covers the following topics.

- Calculus of exponential, logarithmic, and inverse trigonometric functions.
- Indeterminate forms, L'Hôpital's rule.

- Methods of integration: integration by parts, trig integrals, trig substitution, partial fractions.
- Improper integrals.
- Infinite series: sequences and series, convergence tests, power series, Taylor series.

Tutoring services

- Math and Stats Tutoring:
<https://www.uregina.ca/science/mathstat/undergrad/resources/help-centre.html>
- Student Success Centre:
<http://www.uregina.ca/student/ssc/tutoring/math-stats-tutoring/>
- Global Learning Centre:
<https://www.uregina.ca/international/global-learning-centre/glc-services-programs.html#tutoring>
- Champion College Math/Stats Help Centre:
<https://championcollege.ca/student-services/math-stats-tutoring/>

Grading scheme

- Exams: 90% (best 3 of 4)
- Homework: 10%

Course delivery and computer requirements

The course is taught **remotely**. At no point are you required to be physically in Regina. Here are the technology requirements.

- A computer, laptop, or similar device, with a reliable internet connection.
- A way of submitting work online, e.g., a smartphone camera or a scanner. Writing on a tablet with a stylus is another option.
- A video camera and microphone are not required, though recommended in order to facilitate participation. Note: Most laptops have a built-in camera and microphone, which work fine for our purposes.

The course has both synchronous and asynchronous components.

- **Synchronous:** Lectures / problem sessions during the designated schedule. Problem sessions during the tutorials.
- **Asynchronous:** Pre-recorded lectures, selected readings, additional notes and worked examples, online work.

Exams

- Midterm 1: **Friday February 5.**
- Midterm 2: **Wednesday March 10.**
- Midterm 3: **Wednesday April 7.**
- Final Exam: **Monday April 19.**

Details for each exam will be confirmed. Midterms will occur around the scheduled class time.

The Final Exam covers the entire semester, with emphasis on later sections.

All exams will be **open book**: the textbook, notes, class material, and simple scientific calculators are allowed. More details will be provided as to which resources are allowed and which are not.

Homework

Homework will be assigned more or less weekly and submitted online on WeBWorK.

Late homework will not be accepted.

The **lowest homework score** will be dropped.

Missed course work

Information about missed course work can be found in the *Academic Regulations*, section “Deferral of Final Exams or Course Work”, available at:

<https://www.uregina.ca/student/registrar/resources-for-students/academic-calendars-and-schedule/undergraduate-calendar/sections.html>

See in particular the sections “Grounds for Deferral” and “Supporting Documentation”.

Exam: If you miss an exam for any reason (illness, etc.), it will count as the lowest of the four exams being dropped. There will be no make-up exam.

For administrative purposes, the Final Exam plays the role of a fourth midterm. In particular, the section “Deferral of Final Exam” in the *Academic Regulations* does not apply here.

Homework: Likewise, if you miss a homework assignment for any reason, it will count as the lowest assignment being dropped. There will be no make-up homework.

Illness: If you are unable to meet a course requirement due to prolonged illness or other serious circumstances, please contact me as soon as possible. In that case, you should fill out the *Self-Declaration of Illness* and submit it to me. More information is available at:

<https://www.uregina.ca/hr/hsw/COVID-19-Resources/Response-Procedures-if-a-student-is-ill/>

Academic integrity

Working on practice problems with your peers is allowed. However, each student must write exams and homework **on their own**. Handing in suspiciously similar solutions will be considered an instance of cheating.

Handing in any material copied from the internet, a program, or another source will likewise be considered cheating.

Scholastic offences are taken seriously and will not be tolerated. For more information, please consult the *Student Code of Conduct and Right to Appeal*, section “Academic Misconduct”, available at:

<https://www.uregina.ca/student/registrar/resources-for-students/academic-calendars-and-schedule/undergraduate-calendar/sections.html>

as well as the *Faculty of Science Student Handbook*, section “Academic Integrity”, available at:

<https://www.uregina.ca/science/assets/docs/pdf/programpdf/new-student-manual.pdf>

Accessibility

Any student with special needs who may need accommodation should contact the Centre for Student Accessibility at:

<https://www.uregina.ca/student/accessibility/>

After I receive the letter from the Centre for Student Accessibility, please contact me to discuss the accommodation.