

# MATH 231 - Euclidean Geometry

Winter 2019

## General information

**Instructor:** Martin Frankland

**Email:** [Martin.Frankland@uregina.ca](mailto:Martin.Frankland@uregina.ca)

**Office:** CW 307.17

**Office hours:** Mondays 2-3 pm, Tuesdays 3-4 pm.

**Lectures:** MWF 4:30 - 5:20 pm in room Classroom Building 125. There are no tutorials.

**Textbook:** *Geometry*, by Roger Fenn.

**Prerequisite:** MATH 221.

**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

- The geometry of the Euclidean plane: Euclidean axioms, angles and lines, triangles, polygons, isometries and similarities, circles.
- Coordinate geometry: numbers, coordinate systems, equation of a line, distances and angles, area.
- The geometry of complex numbers: definition of complex numbers, operations, modulus, lines and circles in the complex plane, roots of unity.
- Conics: conic sections, conics as quadratic curves, focal properties of conics.

## 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/index.html>

### Global Learning Centre:

<https://www.uregina.ca/international/global-learning-centre/glc-services-programs.html#tutoring>

### Campion College Math/Stats Help Centre:

<http://campioncollege.ca/academics/academic-support-services>

## Grade determination

- Homework: 20%
- Midterm: 30%
- Final exam: 50%

To pass the course, in addition to the usual passing grade, a score of 30% on the course work (homework and midterm) and 30% on the final exam is required.

## Exams

- Midterm: **Wednesday March 6**, in class.
- Final exam: **Monday April 29**, 2:00 - 5:00 PM, room to be announced.

The final exam covers the entire semester.

All exams will be **closed book**: notes or class material are not allowed.

Calculators or electronic devices (cell phones, iPads, etc.) are **not allowed** on exams.

## Homework

Homework will be assigned more or less weekly and collected in class. Selected problems from each assignment will be graded.

**Late homework will not be accepted.**

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

If needed, homework can be submitted in advance: in lectures, office hours, or at the Math Office (CW 307.14).

## 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”.

**Schedule conflicts:** If you have a schedule conflict between an exam and another course or university sponsored activity (e.g. conference, sports tournament), please contact me in advance, **no later than a week before the exam** in question.

**Illness:** If you are unable to meet a course requirement due to illness or other serious circumstances, please contact me as soon as possible.

**Homework:** An excused missed assignment will be dropped. There will be no make-up homework.

**Midterm:** In case of excused absence from the midterm, the midterm will be dropped. There will be no make-up midterm.

**Final:** You will need to submit the form *Deferral of term work and/or final exam*, available at:

[https://www.uregina.ca/student/registrar/assets/docs/pdf/forms/deferral\\_form.pdf](https://www.uregina.ca/student/registrar/assets/docs/pdf/forms/deferral_form.pdf)

For more information, please consult the *Academic Regulations*, section “Deferral of Final Exam”, or contact Science Student Services, Lab Building 238.

## Academic integrity

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

Handing in any material copied from the internet 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**

If you feel you may need academic accommodation due to a disability, injury, or illness, please contact the Centre for Student Accessibility. Their contact information is available at:

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

After I receive the letter from the Centre for Student Accessibility, please schedule an appointment with me to discuss the accommodation.