DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES UNIVERSITY OF TORONTO MISSISSAUGA

MAT402H5F LEC0101 Classical Geometries Course Outline - Fall 2019

Class Location & Time Tue, 09:00 AM - 11:00 AM IB 235

Thu, 12:00 PM - 01:00 PM IB 235

Instructor Michael Groechenig

Office Location DH 3054

Office Hours Thursday, 2-3:30 pm

E-mail Address michael.groechenig@utoronto.ca

Course Web Site https://q.utoronto.ca

Course Description

Euclidean and non-Euclidean plane and space geometries. Real and complex projective space. Models of the hyperbolic plane. Connections with the geometry of surfaces. [36L, 12T]

Prerequisite: MAT102H5, MAT232H5/MAT233H5/MAT257Y5, MAT224H5/MAT240H5

Corequisite: MAT301H5

Exclusion: MAT402H1, MATD02H3 (SCI)

Distribution Requirement: SCI

Students who lack a pre/co-requisite can be removed at any time unless they have received an explicit waiver from the department. The waiver form can be downloaded from here.

Detailed Course Description

This course will focus on the following topics:

Euclid's elements and parallel postulates incidence geometry projective planes postulates of neutral geometry cartesian and hyperbolic geometry

Textbooks and Other Materials

Required:

• John Lee, "Axiomatic Geometry", American Mathematical Society.

Supplementary:

• Euclid's elements, e.g.: Dana Densmore (Editor), "Euclid's Elements", Green Lion Press.

Assessment and Deadlines

Type	Description	Due Date	Weight
Assignment	Homework	On-going	25%
Term Test	Midterm	2019-10-08	25%
Final Exam	Final Exam	TBA	50%
		Total	100%

More Details for Assessment and Deadlines

Homework assignments are due on the date specified, and are to be submitted directly to the TA at the beginning of the tutorial. The assignments will be posted on Quercus. There will be one in-class one-hour midterm test on Tuesday, October 8th.

Penalties for Lateness

Late submissions will not be accepted. However, everyone gets a joker: you may choose not to submit**one** assignment **without penalty**, no questions asked.

Procedures and Rules

Missed Term Work

To request special consideration, bring supporting documentation to the instructor in person during office hours at least one week in advance.

In case of illness, bring a U of T medical certificate to the instructor within one week of the missed work. The certificate must specify the exact period during which you were unable to carry out your academic work.

Missed Final Exam

Students who cannot write a final examination due to illness or other serious causes must file an<u>online petition</u> within 72 hours of the missed examination. Original supporting documentation must also be submitted to the Office of the Registrar within 72 hours of the missed exam. Late petitions will NOT be considered. If illness is cited as the reason for a deferred exam request, a U of T Verification of Student Illness or Injury Form must show that you were examined and diagnosed at the time of illness and on the date of the exam, or by the day after at the latest. Students must also record their absence on ACORN on the day of the missed exam or by the day after at the latest. Upon approval of a deferred exam request, a non-refundable fee of \$70 is required for each examination approved.

Academic Integrity

Honesty and fairness are fundamental to the University of Toronto's mission. Plagiarism is a form of academic fraud and is treated very seriously. The work that you submit must be your own and cannot contain anyone elses work or ideas without proper attribution. You are expected to read the handout How not to plagiarize (http://www.writing.utoronto.ca/advice/using-sources/how-not-to-plagiarize) and to be familiar with the Code of behaviour on academic matters, which is linked from the UTM calendar under the link Codes and policies.

Final Exam Information

Duration: 3 hours Aids Permitted: None

Additional Information

Email policy: use your U of T email; include an informative subject line.

Last Date to drop course from Academic Record and GPA is November 7, 2019.