



CLST 407 Greek Geometry

Winter Term 2026

Course Description:

Greek geometry is one of the foundations from which modern mathematics sprang. The Greek idea of a mathematical 'proof' became the very standard of rigour for other sciences. We will explore the methods and achievements of Greek geometry through a close reading of selected texts from pure and applied Greek mathematicians, beginning with the basics of Geometry as outlined in Euclid's Elements, and then moving on to more sophisticated methods and themes in other authors. No prior knowledge of ancient or modern mathematics is required, but a willingness to learn some is essential.

This course counts toward Faculty of Education requirements for Intermediate-Senior Mathematics Teaching Subject and Primary-Junior Curriculum Area

Course Learning Outcomes:

1. Critically articulate the main themes in the history of Greek mathematics.
2. Creatively analyze elementary geometric proofs and constructions.
3. Compose geometrical diagrams using only ruler-and-compass methods.
4. Contextualize specific proofs and arguments in mathematics.
5. Critically assess modern literature in the history and philosophy of mathematics.
6. Evaluate and engage arguments in the philosophy of mathematics.
7. Solve incomplete geometrical proofs.
8. Uncover the logical and textual chains that underlie proofs in and outside of Euclid.

Units: 3.00

Learning Hours: 120 (36 Lecture, 84 Private Study)

Requirements: Prerequisite (Level 3 or above) or permission of the Department.

Exclusion: CLST 410/3.0 (Topic Title: Ancient Mathematics - Winter 2021).

Offering Faculty: Faculty of Arts and Science

Instructor: Dr. Daryn Lehoux