Department of Mathematics & Statistics
Concordia University

> ### MAST 699C (MAST 833C)
> Algebraic Geometry Title: Schemes
> ***Winter 2018***

Instructor: Dr. Adrian Iovita, Office: LB 927-5 (SGW), Phone: 848-2424, Ext. 3265
Email: adrian.iovita@concordia.ca

Schedule: Monday & Wednesday, 10:00 – 11:30, Room LB 928 (SGW).

Office Hours: By appointment

Main Topics:
1) Sheaves
2) Schemes
3) First properties of schemes
4) Separated, proper and finite morphisms
5) Quasi-coherent modules on a scheme
6) Differentials

Main Text: Algebraic Geometry, R. Hartshorne, GTM 52, Springer Verlang

Outline: The course aims at giving an introduction to the theory of schemes
by defining first affine schemes, projective schemes and then schemes in general.
A special importance will be given to solving the problems in Hartshorne's book.

Evaluation: Evaluation: the grade will be based on the average of the homework grades (6 homework assignments of around 20 problems each.)

If the grading scheme for this course includes graded assignments, a reasonable and representative subset of each assignment may be graded. Students will not be told in advance which subset of the assigned problems will be marked and should therefore attempt all assigned problems.

Academic Integrity and the Academic Code of Conduct
This course is governed by Concordia University's policies on Academic Integrity and the Academic Code of Conduct as set forth in the Undergraduate Calendar and the Graduate Calendar. Students are expected to familiarize themselves with these policies and conduct themselves accordingly. "Concordia University has several resources available to students to better understand and uphold academic integrity. Concordia's website on academic integrity can be found at the following address, which also includes links to each Faculty and the School of Graduate Studies: concordia.ca/students/academic-integrity." *[Undergraduate Calendar, Sec 17.10.2]*