Department of Mathematics & Statistics
Concordia University

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MATH 494 (MAST 699/833), Sec. D
Topics in Algebra
Fall 2019

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Instructor: Dr. G. Rosso, Office: LB 927-11, Phone: (514) 848-2424, Ext. 3985
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Office Hours: By appointment.

Class Schedule: Mondays & Wednesdays, 9:30-11:00 AM LB 759-6.

Textbook: Diamond & Shurman, A First Course in the Modular Forms, Springer GTM 228 (not compulsory).

Topics: This course will be an introduction to the theory of modular forms over the complex number. We shall cover the following topics: the modular group and the upper half-plane, Eisenstein series, Hecke operators, L-functions, modular curves, geometric interpretation of modular forms. If time allows it, further topics (Galois representations or Eichler--Shimura relations) will be considered. Knowledge of complex analysis, Riemann surfaces, and sheaves is useful but not necessary. Further reading on p-adic or Drinfeld modular forms will be available for motivated students.