Department of Mathematics & Statistics Concordia University

MATH 699H (MAST 833G)

Galois Representations *Fall 2014*

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Topics:

The course will present the theory of continuous representations of the absolute Galois group of a number field with values in a finite dimensional Q_p-vector space. More precisely we will study:

- 1. Examples: Galois representations attached to elliptic curves and modular forms.
- 2. The restriction of a global Galois representation to a decomposition group at l\neq p Weil-Deligne representations.
- 3. The restriction of a global Galois representation to a decomposition group at p. Hodge-Tate representations.
- 4. Hodge-Tate representations attached to elliptic modular forms.