

Course: CHEM 381

Instructor: Ian S. Butler

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Brief course description:

As a continuation of CHEM 281, Inorganic Chemistry 1, “Main Group Chemistry”, this course will focus on the Chemistry of the transition-metal elements. The lectures will include an analysis of transition metal-ligand bonding and its electronic and geometric consequences. With this background, both traditional coordination complexes and organo-transition metal complexes will be described. We will discuss nomenclature, structural properties, isomerism, magnetic properties and the use of various spectroscopic characterization techniques.

Method of Delivery:

A mixture of recorded and live Zoom lectures, including one guest lecturer from INRS. Live TA-led tutorials.

Evaluation Scheme:

40% Take-home Midterm 1 (Oct 5-7)

40% Take-home Midterm 2 (Nov 23-25)

20% PowerPoint presentation (15 min) on any transition-metal chemistry topic with a 2-page summary with references (Nov 30)