electronic excited states. Ligand-field, parameters, bond covalence, prediction of inorganic reaction paths.
Precludes additional credit for CHEM 4500.
Prerequisite: CHEM 3504 or equivalent.
Lectures three hours a week.

CHEM 4504 [0.5 credit] (formerly 65.454)
**Advanced Topics in Inorganic Chemistry II**
Reactivity of inorganic coordination compounds. Thermodynamic and kinetic factors affecting reactivity. Industrial and biochemical processes catalyzed by metal coordination compounds. Experimental methodologies, data analysis and rate law evaluation used to obtain reaction mechanisms leading to improved methods of catalysis.
Prerequisite: CHEM 3504 or equivalent.
Lectures three hours a week.

CHEM 4700 [0.5 credit] (formerly 65.470)
**Special Topics in Chemistry**
A topic of current interest in any branch of chemistry. Only one special topics course may be presented for credit.
Prerequisite: permission of the Department.

CHEM 4800 [0.5 credit] (formerly 65.480)
**Atmospheric Chemistry**
Properties of natural atmospheric constituents; biogeochemical cycles involving gases; chemical reactions in the atmosphere; anthropogenic atmospheric pollutants (e.g., chlorofluorocarbons, sulphur and nitrogen oxides, photochemical smog sources and effects on the biosphere. Relation between the structure of molecules and their spectral and reactive properties.
Prerequisite: CHEM 2101 or CHEM 2800.
Lectures three hours a week.

CHEM 4908 [1.0 credit] (formerly 65.498)
**Research Project and Seminar**
Senior students in Honours Chemistry carry out a research project under the direction of one of the members of the Department. A written report and an oral presentation of the work are required before a grade can be assigned.
Prerequisites: any two of CHEM 3105, CHEM 3106, CHEM 3205, CHEM 3305 and CHEM 3505.
Laboratory and associated work equivalent to at least eight hours a week for two terms.

CHEM 4909 [0.5 credit] (formerly 65.499)
**Co-operative Work Term Report 3**
These work terms provide practical experience for students enrolled in the Co-operative option. To receive credit, students must receive satisfactory evaluations from their work term employer and in their written and oral reports. Graded Sat or Uns.
Prerequisites: registration in the Chemistry Co-operative option and permission of the Department.

# Child Studies (CHST)

Child Studies Committee
Institute of Interdisciplinary Studies
Faculty of Arts and Social Sciences

CHST 2501 [0.5 credit] (formerly 04.251*)
**Issues in Child Studies**
An interdisciplinary approach to Child Studies. Introduction to perspectives and methods of study employed by various disciplines, including psychology and sociology. Issues related to research ethics will be introduced.
Prerequisite: PSYC 1001 and PSYC 1002 or PSYC 1000 and permission of the Institute.
Lecture and discussion groups, three hours a week.