

# CHEMISTRY 4466b

## 2009

### *The Evolution of Chemical Thought*

**Prerequisites for Chem 4466b:** Chemistry 3371F and 3373F or equivalent.

Unless you have either the requisites for this course or written special permission from your Dean to enrol in it, you will be removed from this course and it will be deleted from your record. This decision may not be appealed. You will receive no adjustment to your fees in the event that you are dropped from a course for failing to have the necessary prerequisites. If you are unable to meet a course requirement due to illness or other serious circumstances, you must provide valid medical or supporting documentation to your Dean's Office as soon as possible and contact your instructor immediately. It is the responsibility of the student to make alternative arrangements, if applicable, with his or her instructor once the accommodation has been approved and the instructor has been informed. In the event of a missed final exam, a "Recommendation of Special Examination" form must be obtained from your Dean's Office immediately. For further information please consult the university's medical illness policy at <http://www.uwo.ca/univsec/handbook/appeals/medical.pdf>. A student requiring academic accommodation due to illness should use the Student Medical Certificate ([https://studentservices.uwo.ca/secure/medical\\_document.pdf](https://studentservices.uwo.ca/secure/medical_document.pdf)) when visiting an off-campus medical facility. For visits to Student Health Services, request a Record's Release Form, which is located in the Dean's Office.

**Instructor:** Mel Usselman, CB 072 [usselman@uwo.ca]  
**Lectures:** Mon & Fri: 12:30-1:20pm, and Wed: 2:30-3:20 in CB115  
**Required Text:** The Evolution of Chemical Thought, P. deMayo & M.C. Usselman, UWO Available from Chem Stores  
**Course Content:** (outline notes available at <http://instruct.uwo.ca/chemistry/4466>)

The course will explore the ways by which chemical knowledge is generated, accepted and transmitted. The historical development of fundamental chemical concepts will be studied, and the interplay of experimental data and human factors will be emphasized. Although chemistry will be analysed in historical context, the conclusions drawn remain pertinent to modern chemistry. The material scheduled to be covered (with approximate number of lectures) is:

Introduction	(2)
Composition	(4)
Atomism	(7)
Affinity	(3)
Bonding/Valence	(5)
Stereochemistry	(5)
Oxidation/Reduction	(5)
Vitalism	(4)

**Grade Assignment:**

2 term assignments	40%
in-class presentation	20%
3 hr final exam	40%