

COURSE IMPLEMENTATION DATE:	September 2002
COURSE REVISED IMPLEMENTATION DATE:	May 2006
COURSE TO BE REVIEWED:	December 2009
(Four years after implementation date)	(MONTH YEAR)

OFFICIAL COURSE OUTLINE INFORMATION

Students are advised to keep course outlines in personal files for future use.

Shaded headings are subject to change at the discretion of the department and the material will vary - see course syllabus available from instructor

FACULTY/DEPARTMENT:	Chemistry	
CHEM 113		5
COURSE NAME/NUMBER	FORMER COURSE NUMBER	UCFV CREDITS
	PRINCIPLES OF CHEMISTRY I	
COURSE DESCRIPTIVE TITLE		

CALENDAR DESCRIPTION:

An introduction to principles of chemistry with the emphasis on theory of atomic and molecular structure and bonding. Work performed in the laboratory complements lecture material. Along with Chemistry 114, this course will satisfy requirements for students wishing to pursue an honours or majors program in science.

Note (1): For students entering in the 2007-08 academic year or later, Chemistry 12 and Principles of Math 12 must be provincially examined.

Note (2): After April 2007 CHEM 093 will no longer be accepted as a prerequisite for this course.

PREREQUISITES: One of: **CHEM 12, OR CHEM 093, OR CHEM 110, plus Principles of Math 12 or equivalent.**

COREQUISITES: None

SYNONYMOUS COURSE(S)	SERVICE COURSE TO:
(a) Replaces: CHEM 111 (Course #)	(Department/Program)
(b) Cannot take: CHEM 111 for further credit. (Course #)	(Department/Program)

TOTAL HOURS PER TERM:	99	TRAINING DAY-BASED INSTRUCTION
STRUCTURE OF HOURS:		LENGTH OF COURSE: _____
Lectures: 45 Hrs		HOURS PER DAY: _____
Seminar: 15 Hrs		
Laboratory: 39 Hrs		
Field Experience: _____ Hrs		
Student Directed Learning: _____ Hrs		
Other (Specify): _____ Hrs		

MAXIMUM ENROLLMENT:	36
EXPECTED FREQUENCY OF COURSE OFFERINGS:	annual
WILL TRANSFER CREDIT BE REQUESTED? (lower-level courses only)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
WILL TRANSFER CREDIT BE REQUESTED? (upper-level requested by department)	<input type="checkbox"/> Yes <input type="checkbox"/> No
TRANSFER CREDIT EXISTS IN BCCAT TRANSFER GUIDE:	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No

AUTHORIZATION SIGNATURES:

Course Designer(s): _____ Noham Weinberg	Chairperson: _____ Gillian Mimmack (<i>Curriculum Committee</i>)
Department Head: _____ Arthur Last	Dean: _____ J. Snodgrass
PAC Approval in Principle Date: _____	PAC Final Approval Date: December 7, 2005

LEARNING OBJECTIVES / GOALS / OUTCOMES / LEARNING OUTCOMES:

Students will become familiar with principles of atomic and molecular structure and chemical bonding. They will be able to display their expertise in understanding the lecture material and handling the laboratory equipment.

METHODS:

Lectures, labs, group problem-solving sessions.

PRIOR LEARNING ASSESSMENT RECOGNITION (PLAR):

Credit can be awarded for this course through PLAR (Please check:) Yes No

METHODS OF OBTAINING PLAR:

Course Challenge

TEXTBOOKS, REFERENCES, MATERIALS:

[Textbook selection varies by instructor. An example of texts for this course might be:]

Brown and LeMay, Chemistry

SUPPLIES / MATERIALS:

STUDENT EVALUATION:

[An example of student evaluation for this course might be:]

Labs	20%
Assignments and tests	80%

COURSE CONTENT:

[Course content varies by instructor. An example of course content might be:]

1. Atomic structure and atomic spectra.
2. Electronic structure of many-electron atoms, periodic trends.
3. Chemical bonding. Ionic and covalent bonds. Lewis diagrams.
4. Molecular structure. VSEPR model. Valence bond and MO theories.
5. Intermolecular interactions. Liquids, solids, gases. Gas stoichiometry.
6. Chemical kinetics.