

Grande Prairie Regional College

School of Business

COURSE OUTLINE – FALL 2006 & WINTER 2007

CH 0110 3 (3 – 0 – 0.5) HS Chemistry Grade 10 Equivalent

| | | | |
|---------------------|--|---------------|--------------------|
| Instructor | Nancy Fraser | Phone | 359 – 2980 |
| Office | J - 216 | E-mail | nfraser@gprc.ab.ca |
| Office Hours | TWRF 10:00 – 10:50 (Subject to change) | | |

Prerequisite(s)/corequisite(s):

SC 0100/MA 0100

Required Text/Resource Materials:

Never Ending Nomenclature by Nancy Fraser
Chemistry 0110 Lab manual
Lab coat
1 piece of 10 quad to 1 cm graph paper
Nonprogrammable calculator
Lab notebook

Description:

Major concepts to be covered include matter and changes; simple atomic model; periodic table; bonding; nomenclature; and chemical equations.

Delivery Mode(s):

Lecture will be the main method of delivery. There is also a large laboratory component in this course.

Credit/Contact Hours:

This course meets for 7.5 hours per week for the second half of the semester and is a 3 credit course.

Objectives:

1. Students should be able to round any number to the correct number of significant figures.
2. Students should be able to recognize the number of significant figures in a number.
3. Students should understand density and be able to solve related problems.
4. Students should understand electrons, protons, and neutrons and where they are found in an atom.
5. Students should understand elementary atomic structure, and be able to draw atomic structure diagrams.
6. Students should understand atomic mass, isotopes, and atomic mass units and be able to solve related problems.
7. Students should understand the periodic law and recognize trends in the periodic table.
8. Students should understand the difference between ionic and covalent bonding (both polar and nonpolar covalent bonding); and the octet rule.
9. Students should know six basic methods of inorganic nomenclature, being able to name a large variety of compounds and write the formulae.
10. Students should be able to balance equations by inspection.
11. Students should know how to write up formal lab reports.

Grading Criteria:

Regular attendance is expected of all students, and is crucial to passing this course. Students who miss classes will soon find themselves falling behind and failing. Lateness will **not** be tolerated as it interrupts the instructor and fellow classmates. As per Department Policy, if you miss more than 15 % per semester of classes (approximately 1 day/week) in any course, you may be debarred from the final exam for that course.

A certificate (a doctor's or a note from the funeral home) will be required to make up the final exam. **You will receive a grade of F if you miss the final.** Call if you are going to miss a test. There may be a deduction of 10% for test rewrites. There are NO makeup quizzes.

*****Very important:** **Laboratory attendance to each specific experiment is compulsory; a passing grade in the laboratory component is required to pass the course.** There are NO 'make up' labs in this course. Being absent from an experiment will result in a grade of **ZERO** for that experiment.

Lab reports must be submitted on the required date and at the **required time**. Assignments will not be accepted after the assignment has been returned to the class. I am usually a speedy marker and return papers the next day.

Penalties for late **assignments** are as follows:
1 day late – 20%, 2 days late – 50%, 3 days late – 100%

Penalties for late **lab reports** are as follows:
5 **minutes** – 10%, 1 day – 20%, after that – 100%

Marking Scheme:

| | |
|--------------|-------------|
| Lab Reports: | 15% |
| Assignments: | 15% |
| Quizzes: | 10% |
| Tests: | 20% |
| Final Exam: | <u>40%</u> |
| Total | 100% |

Grades will be assigned on the Letter Grading System.

| Academic Upgrading Department | | | |
|--------------------------------------|---------------------------|------------------------------|-----------------------------|
| Grading Conversion Chart | | | |
| Alpha Grade | 4-point Equivalent | Percentage Guidelines | Designation |
| A⁺ | 4 | 90 – 100 | EXCELLENT |
| A | 4 | 85 – 89 | |
| A⁻ | 3.7 | 80 – 84 | FIRST CLASS STANDING |
| B⁺ | 3.3 | 76 – 79 | |
| B | 3 | 73 – 75 | GOOD |
| B⁻ | 2.7 | 70 – 72 | |
| C⁺ | 2.3 | 67 – 69 | SATISFACTORY |
| C | 2 | 64 – 66 | |
| C⁻ | 1.7 | 60 – 63 | |
| D⁺ | 1.3 | 55 – 59 | MINIMAL PASS |
| D | 1 | 50 – 54 | |
| F | 0 | 0 – 49 | FAIL |

Course Schedule/Timeline:

| <u>Week(s)</u> | <u>Topic</u> | <u>Required Reading</u> |
|---|---|--------------------------------|
| 0 (Do on your own time) | Scientific terminology | Chapter 2 |
| 0.5 | Significant figures and metric conversion | Chapter 2 |
| 0 (Do on your own time. Test will be a station in expt. 2) | Fundamentals of WHMIS | Chapter 2 |
| 0.4 | Atomic structure history, electrons, protons, and neutrons, atomic mass, isotopes | Chapter 3 |
| 0.2 | Trends in the periodic table | Chapter 4 |
| 0.4 | Bonding | Chapter 5 |
| 4.5 | Nomenclature: naming and writing the formulae for a variety of inorganic compounds. | Chapter 6 |
| 1 | Balance equation by inspection | Chapter 7 |

Examinations:

There is no midterm in this course.

There is a 2.5 hour final at the end of the course. The time and date are set by the Registrar's office.

Statement on Plagiarism:

See calendar. The instructor reserves the right to use electronic plagiarism detection services.