Phone: 1-306-682-2558
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10366 8th Avenue
PO Box 40
Humboldt, Saskatchewan
S0K 2A0

Distance Education Course Outline

Chemistry 30

GENERAL INFORMATION

i. Chem 30 Asynchronous, based out of Watrous Winston School

ii. Teacher: Cindy Cantelon

iii. There are various ways in which I can be accessed.

By email cindy.cantelon@horizonsd.ca
Moodle send me a message through moodle
By phone at Winston school 946 3309 cell phone 540 4448

COURSE DESCRIPTION

i. A major focus of the course is the study of the role of chemical properties and bonds in determining what makes materials suitable for use in specific applications. Students will actively investigate the nature of equilibrium in chemical reactions. In electrochemistry, students explore oxidation-reduction reactions and the impact of electrochemistry on society and the environment. Other topics include organic compounds and acid-base chemistry. Student inquiry will guide independent investigations of chemistry-related phenomena.

(From *Sask Curriculum*)

ii. Prerequisites: Physical Science 20

STUDENT LEARNING OUTCOMES:

MATERIALS SCIENCE

MS1 Examine the role of valence electrons in the formation of chemical bonds.

MS2 Investigate how the properties of materials are dependent on their underlying intermolecular and intramolecular forces.

MS3 Explore the nature and classification of organic compounds, and their uses in modern materials.

MS4 Determine the suitability of materials for use in specific applications.

CHEMICAL EQUILIBRIA

EQ1 Consider the characteristics and applications of equilibrium systems in chemical reactions

EQ2 Analyze equilibrium of aqueous solutions.

EQ3 Observe and analyze phenomena related to acid-base reactions.

ELECTROCHEMISTRY

EC1 Investigate the chemistry of oxidation and reduction reactions.

EC2 Examine applications of electrochemistry and their impact on society and the environment

STUDENT DIRECTED STUDY

SDS1 Create and carry out a plan to explore one or more topics of personal interest relevant to Chemistry 30 in depth.

These outcomes will be met in4 units

Unit 1: Material Sciences
Unit 2: Chemical Equilibria
Unit 3: Electrochemistry
Unit 4: Student directed study

HORIZON SCHOOL DIVISION

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TEACHING STRATEGIES:

i. There are a variety of teaching strategies including videos, online lessons, simulations and interactive online content. Students will have access to all materials online, but a chemistry textbook will be an asset. I don't have a preference; any textbook will provide another perspective of the content.

ii. This is an asynchronous course, so it may be completed at your own timeline, but all course material must be completed by: January 20th for Semester 1 and June 15th for Semester 2.

FINAL EXAM will be a departmental exam written at your home school: **Monday, Jan 28th at 1:00pm or Wednesday, June 26th at 1:00pm**

COURSE MATERIALS

i. Textbook: Non necessary – but ask your local science teacher if they have a good chemistry textbook you could use. It will be valuable to look at valence electrons, electrochemistry, organic chemistry, equilibrium and acid-base reactions. All materials will be provided electronically, but feel free to use texts in your school to supplement and easily find 30-level-appropriate content.

EVALUATION:

Each unit will have you complete activities, simulations or labs and assignments. Some of these will be formative and give you and me immediate feedback. Others will be summative, and contribute to your grade. At the end of each unit there will be a written exam, supervised at your home school. Each unit is weighted to come up with your overall grade.

Unit 1	30%
Unit 2	30%
Unit3	30%
Unit 4	10%

Each assignment, activity or exams measures the objectives of the unit – clearly outlined at the top of each unit's page. You will receive a mark out of 100%. The ministry will account this as 60% towards your final mark and your Final Departmental Exam is worth 40% of your mark.