

BERT CHURCH HIGH SCHOOL: CHEMISTRY 30 COURSE OUTLINE

2023-2024 Mrs. K. King/Mr. Netzel
kking@rockyview.ab.ca jnetzel@rockyview.ab.ca

Change, energy, systems and diversity are central themes in Chemistry 30. The diversity of matter and the nature of chemical change within systems as: heat-energy change (thermochemistry), electrochemical change (redox chemistry), chemical equilibrium change (including acid/base systems), and diversity of organic systems (organic chemistry) will be investigated.

Senior High Science Program Philosophy

The senior high science programs are designed to help all students attain the scientific awareness needed to function as effective members of society. The expected student knowledge, skills and attitudes are approached from a common philosophical position in each science course.

In the senior high science programs, students focus on learning the big interconnecting ideas and principles, which provide continuity with the junior high program and build on students' previous learning.

The senior high science programs place an increased emphasis on developing methods of inquiry that characterize the study of science. Students will be expected to show an appreciation for the roles of science and technology in understanding nature. The learning context is an integral part of the senior high science programs. Learning opportunities will be made meaningful by providing concrete experiences that students can relate to their world.

The senior high science programs place students at the centre. Students are active learners and will assume increased responsibility for their learning. They will appreciate the value of teamwork and make a positive contribution when working with others to solve problems and complete tasks.

Topics Covered in Chemistry 30

Introduction: Lab safety and Chemistry 20 review

Unit 1: Electrochemical Changes: electrochemical systems are examined, oxidation-reduction reactions are analysed, and the energy and matter involved are quantified.

Unit 2: Organic Chemistry: Naming and drawing organic compounds, physical and chemical properties of organic compounds and organic reactions

Unit 3: Thermochemical Changes: energy, as it relates to chemical change.

Unit 4: Equilibrium, Acids and Bases in Chemical Changes: chemical systems at equilibrium, chemical systems involving acids and bases.

Course Evaluation

Classwork/Labs	20%
Unit Exams	50%
Diploma Exam	30%

Course Materials

- Nelson Chemistry, F. Jenkins *et al.* (\$124.94) – supplied to student (if desired)
- Textbook is available online (on Moodle)

- It is expected that you bring your textbook (digital) and notes along with the following to every class: scientific calculator, 3-ring binder, loose-leaf paper, pen, pencil, eraser. *Classroom materials will not be provided or shared between others.*
- Goggles will be available at school and sterilized after every use. However, you may purchase your own individual pair if that is your preference. They **must be** splash resistant.

Science Department Expectations

Please refer to the student handbook for all school policies. Additionally, these are expectations specific to the science department:

Late Procedure	<p>It is reasonable to expect each student to be punctual for each class period. Repeated lateness is disrespectful and discourteous and, if not corrected tends to become commonplace. Corrective action may include detention time, parent intervention or in chronic situations referral to administration.</p>
Missed Assessments	<p>When a student is absent it is their responsibility to contact the teacher about missed work and to determine a mutually agreeable time for missed assessments to be completed.</p>
Calculator Policy	<p>It is the student's responsibility to have an appropriate calculator for tests, quizzes, and assignments.</p> <ul style="list-style-type: none"> • Calculators may be used for exams/quizzes but may not be shared. • Calculators will not be lent out to students by their teacher. • No information, text, or formulas may be stored in electronic form. • Calculators will be cleared before quizzes, exams, and final exams.
Reassessment	<p>Science classes will integrate timely opportunities for reassessment throughout the semester in their respective courses. These will be communicated to students.</p> <p>Intervention week will proceed, as directed, at the end of the semester.</p> <p>Grade 10-12 students who are <i>not passing</i> are required to attend to receive targeted support and to be re-assessed or to complete assignments on <u>1-2 curricular outcome(s) only</u> that would have a substantial impact on course grade.</p> <p>Grade 10-12 students who are <i>passing</i> <i>may choose to attend</i> to be re-assessed or to complete assignments on <u>1-2 curricular outcome(s) only</u> that would have a substantial impact on course grade.</p> <p>All assessment of learning is evidence of learning. This means re-assessment counts towards students' grades, <i>regardless of whether it improves or decreases their grades</i>. This is not punitive or attempting to discourage students from being re-assessed. Rather, it shows the importance of preparing for a second opportunity.</p>
Appeals	<p>Students and parents may direct, in writing, any appeal of the final grade to the school Principal (see page 19 of the student handbook).</p>