



Chemistry 12 Outline September 2018

Mrs. Alefi

PROGRAM GOALS

- To provide opportunities for students to develop the knowledge, skills, and attitudes necessary for scientific literacy through four major processes: working scientifically, communicating scientifically, using science, and applying science to higher level thinking.
- To develop independent learning skills to achieve success at post secondary level.

CLASS GUIDELINES

workbook.

Students are expected to:

- be respectful and courteous
- be attentive during instruction a serious
- attend class on time
- be responsible in the classroom
- help classmates work undisturbed
- complete homework on time recommended.

TEXTBOOK

Chemistry 12 - A Workbook for Students

Students are advised to buy their own copy of the

Chemistry 12 is a **very difficult course** which requires

commitment to **work very hard.**

Chemistry involves a large amount of Mathematics.

Students are expected to have good Math skills before starting Chemistry 12. 70% or better in Math 11 is

MATERIALS

- large three ring binder
- 5 dividers
- pencils, pens, felt pens
- one white eraser
- one ruler (15 cm)
- lined paper, graph paper, agenda book

MARK BREAKDOWN

Tests & Quizzes	70%
Assignments, Labs, H.W., effort and binder	30%

(Approximate)

Calculator: a simple Scientific calculator

A. Reaction Kinetics- \cong 9 days - Safety, reaction rates, properties, controlling rates, homogeneous and heterogeneous reactions, collision theory, kinetic energy and favourable geometry, activated complex, reaction mechanism, activation energy, potential energy diagrams, delta H, catalysts.

B. Dynamic Equilibrium - \cong 12 days- reversible reactions, entropy and enthalpy, Le Chatelier's principle, shifts, K_{eq} .

C. Solubility Equilibrium - \cong 14 days- ionic and molecular solutions, solubility, equations, K_{sp} , common ion effect.

D. Acids, Bases and Salts - \cong 27 days - properties and definitions, Bronsted-Lowry, conjugate acid

base pairs, conductivity, strong and weak acids and bases, dissociation, relative strengths, amphiprotic, equilibrium expressions, predicting effects of adding acids or bases, K_a , K_w , K_b , pH, pOH, calculations, salts, hydrolysis, indicators, transition point in titration, buffers, acid rain. There will be a mid-unit test in this unit.

E. **Oxidation-Reduction** - \cong 17 days- definitions, half and full reactions, relative strengths, spontaneous reactions, balancing reactions, redox titrations, electrochemical cells, reduction potentials, corrosion, electrolytic cells.

F. **Review for Final exam** \cong 10 days (Final Exam is worth 25%).

Attendance/punctuality

You are expected to be in your seat, ready to go at the second bell. You must attend every class on time. Some absences are unavoidable. Get the name and phone number of one or more contact persons in your class; someone who will be able to tell you what was missed when you are away.

Chem 12 contact person _____ Phone No.

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Please try to schedule doctor, dentist etc. appointments for times outside of school hours. Missed quizzes, homework etc should be discussed with the teacher on the first day back. It is the **student's responsibility** to deal with missed quizzes, homework, labs etc. **A particular day will be assigned for students to complete quizzes and assignments they have missed during their absences. This will take place outside of instructional time and students will be expected to attend. The teacher will inform students well in advance. If you are unable to attend, then arrange an alternate time with the teacher.**

Quizzes

Frequent small quizzes will be given based on work from the previous few day's homework assignments. **The quizzes are cumulative and students should make up for missed quizzes for continuity in the course.** If you keep up with your homework and see me for extra help whenever you have difficulties, then you should do well on the quizzes.

Homework

Chemistry 12 is a very **difficult** course and requires a **large amount of homework**. Homework will be assigned every day (except the day of a dance). Homework must be completed and ready to hand in at the beginning of class the next day (unless I specify a later due date).

Workbook

The workbook consists of notes, examples and review questions covering the chemistry 12 curriculum. Students are expected to bring these with them to every class.

Extra help

If you are having difficulty with any homework, put a big star or question mark next to the question and bring it to me for extra help before or after school. Do not let difficulties pile up and then try to understand everything the night before the test. Getting help for short, frequent periods of time is much better than a few, long sessions of help

Safety

Safety must be foremost in every student's mind. Every student will be required to achieve a mark of 100% on the safety test. Students who do not work safely in the lab will not be allowed to do the lab.

Note to Parents/Guardians

Students will be able to see their updated marks that will be emailed to them. **Please provide your email address to your son/daughter so that they can pass that on to me or send me a quick email with your child's name and class and I'll add your email to my list.** You will be receiving their updated marks once every two weeks through emails as well. If you have any questions or concerns, please do not hesitate to contact me at (604) 595-8890, or email me at alefi_f@surreyschools.ca or make an appointment to see me after school.

Parent/Guardian Signature: _____

Email Address _____

Cell Number _____