# SIR ALLAN MACNAB SECONDARY SCHOOL

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| **DEPARTMENT: Science** | **COURSE: Grade 12 University Prep Chemistry** |
| **COURSE CODE: SCH4U-AP** | **TEACHER: Mrs. Wall** |
| **PREREQUISITE: SCH3U-AP** | **ROOM: 1053** |
| **DEPARTMENT HEAD: Mrs. McComb** | **Website: Darlenewall.ca** |
| **On-line Discussions: socrative.com Room: SCH4U** | |
| **To receive text reminders for quizzes, tests, etc: Remind.com (289)210-0852 text: @4UAP-17** | |

## COURSE DESCRIPTION

This course enables students to deepen their understanding of chemistry through the study of organic chemistry, the structure and properties of matter, energy changes and rates of reaction, equilibrium in chemical systems, and electrochemistry. Students will further develop their problem-solving and investigation skills as they investigate chemical processes, and will refine their ability to communicate scientific information. Emphasis will be placed on the importance of chemistry in everyday life and on evaluating the impact of chemical technology on the environment.

## COURSE UNITS OF STUDY/BIG IDEAS

***Organic***

How is the structure of an organic compound used to predict the properties of the compound?

***Structure and Properties of Matter***

How can we illustrate the structure and bonding of an atom using currently accepted theories?

How do the attractive forces between particles in a substance determine the properties of that substance?

***Energy Changes and Rates of Reaction***

How can we describe and predict the energy changes that occur in chemical reactions?

How can we measure and explain how fast chemical reactions occur?

***Chemical Systems and Equilibrium***

What is chemical equilibrium?

How can we influence the outcome of a chemical reaction?

***Electrochemistry***

How can we generate electricity from chemical reactions?

***Scientific Inquiry***

How do I explore scientific issues through the creation and communication of scientific information?

***Technology and the Environment***

How does our use of chemicals impact our health and our environment?

## DEPARTMENT EXPECTATIONS / POLICIES

*All students need to follow all health and safety policies

## MATERIALS REQUIRED

Please come to class with binder, text book, calculator, ruler, pencil, pen every day.

## ASSESSMENT EXPECTATIONS & POLICY

Reported marks are based on the cumulative evidence of student learning of overall expectations, up to the end of the reporting period. Evidence could include a variety of assessments such as tests, assignments, projects, labs, portfolio work, demonstrations and seminars. Assessments will have a balance of the four Achievement Chart categories: Knowledge/Understanding, Application, Communication and Thinking/Inquiry.
A student's final mark will be calculated using the following percentage weighting:

**Term Work 70%** **Performance Task(s) 30%** **FINAL MARK 100%**