SOUTH CARLETON HIGH SCHOOL
Ottawa-Carleton District School Board
COURSE OUTLINE
SCH4U - GRADE 12 University Prep Chemistry
Credit Value: 1 credit Hours: 110 Prerequisite: SCH3U

Expectations
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 the 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.

Big Ideas

Unit Title	Chemistry Focus For Learning Expectations
Organic Chemistry	● Organic compounds have predictable chemical and physical properties determined by their respective structures. ● Organic chemical reactions and their applications have significant implications for society, human health, and the environment.
Structure and Properties of Matter	● Atomic structure, chemical bonding, and molecule shape relate to physical properties of different types of compounds. ● Technological devices that are based on the principles of atomic and molecular structures can have societal benefits and costs.
Energy Changes and Rates of Reaction	● Energy changes and rates of chemical reactions can be described quantitatively. ● Efficiency of chemical reactions can be improved by applying optimal conditions. ● Technologies that transform energy have societal and environmental costs and benefits.
Chemical Systems and Equilibrium	● Chemical systems are dynamic and respond to changing conditions in predictable ways. ● Applications of chemical systems at equilibrium have significant implications for nature and industry.
Electrochemistry	● Oxidation and reduction are paired chemical reactions in which electrons are transferred from one substance to another in a predictable way. ● The control and applications of oxidation and reduction reactions have significant implications for industry, health, and safety and the environment.

**NOTES: a. Specific learning expectations are available for each unit of study. b. The sequence of topics may vary.*

Accommodations for Exceptional Students
The Science department makes every effort to accommodate the identified needs of exceptional (IPRC'd) students and will attempt to differentiate curriculum delivery methods, student modes of expression, and assessment methods as recommended by the student's individual education plan (IEP).

Career Planning
The Science department makes every effort to ensure that students are aware of career opportunities related to various fields of science under study, and describe the contributions of scientists, including Canadians, to those fields.

Technology
The school will supply all necessary laboratory resources and materials.

Evaluation

Term Evaluations (70%)	Summative Evaluation (30%)
Students will be evaluated according to the overall expectations of the Ontario curriculum. *Assessment tools include both summative and formative tasks including but not limited to; tests/quizzes, assignments, projects, lab reports, skill based performance tasks and rich assessment tasks*	*The exam will occur during the exam period in Jan/Jun and will evaluate the whole semester's work. All students must be present.*

More information on South Carleton High School's policy on Assessment and Evaluation, on Academic Integrity, on punctuality, absenteeism and examinations can be accessed on our school website.