



Course Outline – Secondary 4

Science & Technology (Science Option)

Course Code : 555404

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Competencies

<i>Solves Problems</i>	40%
<i>Uses her knowledge of science and technology</i>	40%
<i>Communicates by using scientific & technological vocabulary & symbols</i>	20%

Course Description

Science and technology are playing an increasingly important role in our lives and have made a key contribution to the transformation of societies. Their influence extends to a multitude of achievements that can be found everywhere in our environment. The associated methodologies and the knowledge they have generated apply to many different spheres of human activity.

The SO program concentrates on the topics in the Material World section of the course in order to prepare these students to continue in the sciences next year in Secondary V (Chemistry and Physics) and then in CEGEP Pure & Applied, Health Sciences).

Principle Themes

- Characteristic properties of solids, liquids and gases.
- Elements, compounds, how reactions occur, catalysts and inhibitors.
- Atomic Models and Radioactivity; Isotopes
- The Periodic Table and Periodicity of Properties
- Electrostatics
- Magnetism
- Electric Circuits
- Lewis Notation; chemical nomenclature and writing formulas
- Ionic and Covalent Bonding; Polyatomic Ions
- The Mole and stoichiometry
- Acids, Bases and Salts
- Preparing and Diluting Solutions – concentrations including mol/L;
- pH and Indicators

Evaluation

- Learning and Evaluation Situations
- Evaluation Situations
- Tests, Labs
- Homework

Course Text

- *Science Quest* Les Editions de la Chenelière 2002