

Sir Wilfrid Laurier Secondary School
Grade 12 University Earth and Space Science – SES4U
1.0 credits

Course Description

This course focuses on the Earth as a planet, and on the concepts and theories of Earth science and their relevance to everyday life. Students will examine Earth's place in the solar system; the materials of the Earth; its internal and surficial processes; and its history. The course draws on a variety of disciplines in its consideration of geological processes that can be observed directly or inferred from other evidence.

Strands and Subgroups

Earth as a Planet <ul style="list-style-type: none">• components of the solar system• origin and evolution of the Earth• properties of planets• properties and evolution of stars• space exploration	Earth Materials <ul style="list-style-type: none">• mineral formation, properties, and identification• mineral and rock types• formation and properties of igneous, sedimentary, and metamorphic rocks• exploitation of mineral resources
Internal Structures and Processes of the Earth <ul style="list-style-type: none">• internal spheres of Earth• plate tectonics, subduction, and movement• seismology• volcanism	Earth History <ul style="list-style-type: none">• geologic time scales• relative dating and correlation• radiometric dating• processes of fossilization• life forms in Proterozoic, Paleozoic, Mesozoic, and Cenozoic eras• Evolution of life through fossil analysis
Surficial Earth Processes <ul style="list-style-type: none">• interactions with water• chemical and physical breakdown• weathering and erosion• sedimentation• valley formation• groundwater processes• glacial processes and effects	

Evaluation

The final report card mark will be determined as follows:

Term Work – 70%	Summative – 30%
Consisting of unit tests, lab activities, projects, presentations, and/or other class assignments.	Exam and/or Summative Activity

Attendance & Missed Evaluations

Regular attendance is an integral part of learning. Students are responsible for completing all work missed due to absence. Students must complete the missed evaluation immediately upon return to school, during out-of-class time.

End-of-course evaluations, i.e. the summative activity and final examination, are time-sensitive. Attendance is mandatory for these evaluations. Any absence will result in a mark of zero, unless validated by a doctor's certificate.

If a student participates in **academic fraud** (e.g. cheating on tests, plagiarism on assignments), he / she is deemed not to have met the expectations associated with that particular evaluation.

General Course Information

Students must bring the following materials to each class:

- textbook
- lined paper
- separate Earth and Space binder (to hold notes, tests, quizzes, handouts)
- pencil case (to hold pencils, erasers, ruler)

Course Text: **Earth Science** , Macdougal Littel (\$119.00, GST included).

The student will be issued a text, and will be responsible for the cost of replacement, or repair, if the text is lost or damaged.
