

Introduction to Calculus 45S

Course Outline

Instructor: Mrs. Carol Larson

Contact Information: Phone: 204-734-4511 Ext. 2207

Email: clarson@svsd.ca

Course Description:

Calculus has been the basis for mathematical analysis of real world situations since the seventeenth century. It has many applications, but this course will only introduce a few basic ones, such as finding the equation of tangent lines to curved lines at any point. Calculus is used in virtually all fields of science, maximizing profit/loss in business, and in statistics. In this course we will study limits, derivatives and their application, and be introduced to integrals of functions.

Topics:

Limits --- definition of a limit of a function, laws and properties of limits, application and calculation of limits of functions, and continuity

Derivatives --- definition of a derivative, rules of derivatives, chain rule, implicit differentiation, maximal and minimal values, the Mean Value Theorem, and application of derivatives

Integrals --- definite integrals, indefinite integrals, antiderivatives, and the Fundamental Theorem of Calculus

Assessment:

Summative Assessment:	80% Rich Performance Tasks (Assignments, Tests)
	20% Final Exam

Learning Behaviours:

Personal Management Skills, Active Participation in Learning, and Social Responsibility are assessed during formal reporting times and are recorded on the report card.

Digital Citizenship:

Use of personal devices is **not allowed during class time**. As mandated by the province, **Grade 9 to 12 students: banned from cell phone use during class time on campus and off campus but are permitted to responsible use of cell phones during break times and lunch.** Devices or distractions will be out of sight while class is in session. Once attendance is taken and class begins any distractions need to be removed by placing them in a binder or backpack. If distractions are consistent, you will be asked to place your device in a safe place at the front of the room. There are also locations available to charge devices during class time.

*"All members of the Swan Valley School Division community are expected to use digital technology in a safe, respectful, responsible, and ethical manner. SVSD devices are to be used in the classroom for learning. Students are encouraged to use these devices **as supported by the classroom teacher for positive educational benefits** and guided classroom instruction."*

*****Absolutely no electronic devices are permitted during quizzes, tests, or exams. Students who are caught with electronic devices will receive an automatic zero without debate*****

Class Expectations/Beliefs:

It is expected that all members of the school community will uphold the underlying beliefs of the school code which include the following: Learning, Respect, Responsibility, and Safety. Everything we do focuses on providing learning opportunities for all members of our school community. Be respectful of each other, the classroom, and our school environment. Come ready to learn! Make wise choices! And keep everyone safe physically and emotionally!