## **Growing Minds**

Mathematics Department
Course Outline
Geometry and Discrete Mathematics 12
(MGA4U)

This course is based on the following Ministry of Education documents: The Ontario Curriculum Grades 11 and 12, Mathematics, 2000.

Course Name: Geometry and Discrete Mathematics, Grade 12, University Preparation

Course Type: University Preparation

Course Code: MGA4U

Credit Value: One credit

Hours: 110 hours

Prerequisite: Functions and Relations, Grade 11, University Preparation

Course Description (As specified in the Ministry of Education Policy Document)

This course enables students to broaden mathematical knowledge and skills related to abstract mathematical topics and to the solving of complex problems. Students will solve problems involving geometric and Cartesian vectors, and intersections of lines and planes in three-space. They also develop an understanding of proof, using deductive, algebraic, vector, and indirect methods. Students will solve problems involving counting techniques and prove results using mathematical induction.