Mr. Hazlewood                    mhazlewood@trsd.ca               Grade 11 Applied Math

# Applied Math 30S – Course Outline

**Credit Value:** 1 Credit
**Course Code:** 3903
**Prerequisites:** None
**Required Materials:** Binder, paper, pen, calculator
**Textbook:**      Alexander, R. et. al. 2000. Applied Mathematics 11. Pearson Education
Canada Inc, Toronto, ON.
**Mathematical wisdoms…**

"Mathematics is a game played according to certain simple rules with meaningless marks
on paper."

- David Hilbert

"In mathematics, you don't understand things. You just get used to them."
- Johann von Neumann

## Course Description

Applied Math 30S is a course designed to promote the learning of geometrical and
numerical problem-solving skills through the analysis of everyday contextual situations.
The primary goal of the course is to create students who are able to analyze and solve
mathematical problems in various ways given a multitude of different tools.

One of the main focuses of the course is to have students use technology extensively to
help them analyze problems. During the semester students will use calculators, templates,
spreadsheets, and online applications to investigate mathematical applications.

**This course requires a ti-83 be brought to each and every class. If you do not already
have one, you can purchase one on your own at a value of around $150, or you can
choose to "rent" one from the office. A $75 deposit will be required to use the school
calculator, but this deposit will be returned at the end of the semester if the calculator is
still in good working condition.

## Course Timeline

Unit 1: Proofs
*Inductive Reasoning*
*Deductive Reasoning*
(No Assessment)
Unit 2: Quadratic Functions
*Solving by Factoring*
*Solving by Graphing*
(Assessment Feb. 27, Mar. 11)
Unit 3: Trigonometry
*Sine Law*
*Cosine Law*
(Assessment Apr. 14)

Unit 4: Systems of Inequalities
*Solving Systems*
*Optimization Problems*
(Assessment May 5)
Unit 5: Statistics
*Standard Deviation*
*Z-Scores*
(Assessment June 3)
Unit 6: Scale
*Surface Area Problems*
(Assessment June 17)

**Assessment** – curriculum available at https://www.edu.gov.mb.ca/k12/cur/index.html
Course Work (70%) – Each topic will have multiple formative assessments to help students recognize areas of strength and areas to continue to improve on. There will also be at least one summative assessment in each topic that will be weighted based on the amount of time spent on that section. Larger sections that the class finds interesting will have larger assessments worth a greater percentage of the course mark. Final mark will be a percentage grade.

Final Exam (30%) – The final exam is cumulative, and will focus on material covered on various topic assessments. There will also be questions regarding the performance assessments as well as the inquiry project.

*Academic Dishonesty* – any act of cheating, plagiarizing, or copying of work by a student will result in stiff penalties. The first offense will be a choice of zero on the assignment or a redo at my convenience, as well as a letter sent home to your parents. The second offense will be an automatic zero, with a referral to administration for any further discipline.

*Late Assignments* – There are no assignments in this course. Performance assessments and inquiry projects are due on or before the date set. Other than medical emergencies and prior arrangements, failure to do so will result in a grade of 0.

*Missed Assessments & Rewrites* – Any missed assessment will be given a grade of 0 unless valid reasons are given (*eg. hospitalization*). A student who misses an assessment will be required to complete it during the lunch hour (or spare) ***on the day they return to school***. Assessments can be rewritten upon the request of the student, but will only be granted after that student has earned the opportunity. This requires attendance at lunch (or spare) for extra help and practice, as well as multiple formative assessments in order to demonstrate sufficient understanding.

*Attendance* – Please attend class. If you miss a class it is your responsibility to catch up on missed work. If you need extra help I am available most lunch hours upon request. Missing 10 classes will result in a meeting with parents and principal to determine status in the course.

*Technology* – Cell phones are only to be used in class when instructed to do so. All students will be required to hand in phones at the beginning of each class.

*Class Expectations* – Be on time for class, with all required materials. Be involved in class discussions and complete all assigned work. Ask for extra help when needed or when missing class.