GEORGE HARVEY COLLEGIATE INSTITUTE
MHF4U - Grade 12 Advanced Functions, University

Teacher: M. Chong Yen
Assistant Curriculum Leader: A. Chor
Prerequisite: Functions, Grade 11, University Preparation,

## COURSE DESCRIPTION

This course extends students' experience with functions. Students will investigate the properties of polynomial, rational, logarithmic, and trigonometric functions; develop techniques for combining functions; broaden their understanding of rates of change; and develop facility in applying these concepts and skills. Students will also refine their use of the mathematical processes necessary for success in senior mathematics. This course is intended both for students taking the Calculus and Vectors course as a prerequisite for a university program and for those wishing to consolidate their understanding of mathematics before proceeding to any one of a variety of university programs.

TEXTBOOK Advanced Functions 12 - McGraw-Hill Ryerson, 2008.
ISBN Number: 9780070266360 (Cost: $\$ 90.60$ plus taxes and shipping.)

## REQUIRED MATERIALS

- 3-Ring Binder - Scientific Calculator - Writing Utensils - Student Agenda


## COMMUNICATION OF STUDENT ACHIEVEMENT

Student progress and achievement are communicated to the students on an on-going basis through: interim progress reports, student-teacher conferences, verbal/written feedbacks, daily practices, formative assessments, and summative evaluations. See student agenda for detailed information on mid-term and final reporting of student achievement of curriculum expectations and learning skills.

Learning is the responsibility of the students. If students experience any kind of difficulty with their studies, access to remedial help is available from the teacher by arrangement. The teacher may contact parents/guardians regarding any concerns about student progress and achievement.

A parent/guardian may contact the teacher regarding any concern or issue about student progress and achievement in person (preferably by appointment), by phone (416) 394-3180, or via email: matthew.chongyen@tdsb.on.ca

## ACCOMMODATIONS FOR EXCEPTIONAL AND ESL/ELD STUDENTS

Appropriate accommodations for exceptional and ESL/ELD students are provided by the teacher following recommendations as outlined in each identified student's Individual Education Plan (IEP) and/or Annual Education Plan (AEP). See student agenda for more information.

## ASSESSMENT/EVALUATION

The assessment/evaluation in this course may consist of a combination of the following:

- Mini-Test/Tests
- Notebook
- Assignments
- Culminating Activity
- Projects/Presentations
- Written Exam


## SUMMATIVE EVALUATION

Summative evaluation is represented by a percentage grade which is a weighted average of the four achievement categories as outlined in the Ontario curriculum documents:

| Achievement Categories | Knowledge | Thinking/Inquiry | Communication | Application |
| :--- | :---: | :---: | :---: | :---: |
| Percentage Weightings | $30 \%$ | $20 \%$ | $20 \%$ | $30 \%$ |

## Term Evaluation (70\%):

| Unit | Topic | Approx. Time | Evaluations |
| :---: | :--- | :---: | :--- |
| $\mathbf{1}$ | Polynomial Functions | 15 Hours | Quiz <br> Unit Test (End of unit) |
| $\mathbf{2}$ | Polynomial Equations and <br> Inequalities | 15 Hours | Quiz/Assignment <br> Unit Test (End of unit) |
| $\mathbf{3}$ | Rational Functions | 15 Hours | Quiz/Assignment <br> Unit Test (End of unit) |
| $\mathbf{4}$ | Trigonometry | 15 Hours | Quiz/Assignment <br> Unit Test (End of unit) |
| $\mathbf{5}$ | Trigonometric Functions | Mini-Tests (On-going) <br> Unit Test (End of unit) |  |
| $\mathbf{6}$ | Exponential and Logarithmic <br> Functions | 15 Hours | Assignment <br> Unit Test (End of unit) |
| $\mathbf{7}$ | Tools and Strategies for Solving <br> Exponential an Logarithmic <br> Equations | 10 Hours | Quiz/Assignment <br> Unit Test (End of unit) |
| $\mathbf{8}$ | Combining Functions | 10 Hours | Mini-Tests / Quiz <br> Unit Test (End of unit) |

## Final Evaluation (30\%):

Final evaluations cover all strands and overall curriculum expectations of the course, across all four achievement categories.

| Final Exam | $30 \%$ | End of course |
| :---: | :---: | :---: |

I have read the above information and I understand the expectations of this course.
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