



COURSE NAME/CODE: MHF 4U0 Advanced Functions
PREREQUISITE: MCR 3U0 or MCT 4C0
TEACHER: Mr. M. De Poli

Grade 12
University
Semester II

TERM MARK BREAKDOWN:		EVALUATION		Credit Value	1.0
Knowledge/Understanding	40 %	Term Mark:			70 %
Thinking/Inquiry	15 %	Formal Exam:			30 %
Communication	15 %				%
Application	30 %				
Term Mark	100 %	Final Evaluation Mark			100 %

UNITS AND TIMELINE:

1. Functions: Characteristics, Properties and Rates of Change (15 Periods)
2. Polynomial Functions (16 Periods)
3. Rational Functions (11 Periods)
4. Trigonometric Functions (17 Periods)
5. Logarithmic Functions (11 Periods)
6. Combining Functions (8 Periods)
7. Exam Review (5 Periods)

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.

RESOURCES:

1. Textbook: Nelson Advanced Functions
2. Materials: A notebook, textbook, pencils, pen, ruler, graph paper, and a scientific calculator are required in class every day.
3. Class Web Site: Daily homework and Quiz and Test Solutions will be posted on the class website: depoli.ca

ACHIEVEMENT CHART:

Assessment tools to be used over the entire semester may include but are not limited to the following: tests, quizzes, lab reports, assignments, group and research projects.

TESTS: Students will be notified well in advance of all major tests. Students **must** be present on the day of a test. If a student knows that he/she will not be present on the test day, the teacher must be notified in **advance**. Arrangements will be made to allow the student to write the test at another time. The responsibility lies solely with the student to make the necessary arrangements to make up for missed work.

QUIZZES: Students may or may not be notified the day before a quiz. If the student has missed class for any reason, it is the student's responsibility to find out what was missed and to do the required homework for the following day. The student may be required to write the quiz at the time assigned by the teacher.

RESEARCH ASSIGNMENTS/GROUP WORK: The course consists of several units. Each unit may have a major research or group assignment that is related to the unit of study. Students will receive a detailed description of the assignment near the beginning of the unit. A reasonable due date will be established. Students will be evaluated on their individual contribution as well as the entire group project if applicable.

LABS (if applicable): A written lab report must be submitted the day after the lab has been completed. Although the students work in pairs to gather the data, each student will hand in his/her own report. Copying a part of or the entire assignment of another student will not be tolerated (see policy on plagiarism). Lab reports may be assessed on a quiz.

HOMEWORK: Homework may be assigned daily. If for any reason homework is not complete, the student must see the teacher to discuss the issue. Homework will be verified on a regular basis.

ORGANIZATIONAL UNIT POLICY

LATES/ABSENCES: It is the student's responsibility to be present for classes and to submit assignments on due dates. If assignments are not submitted, the course expectations may not be met and as such the course credit may be **denied**. A late penalty of no more than 10% will be deducted from any assignment handed in late or after the due date. Assignments handed in after the absolute deadline, more than one week late or handed in after the assignments are handed back to students may be graded as zero.

SUSPENSION: When a student is suspended from school, it is the sole responsibility of the student to catch up on any work missed. If a student misses a test during a day of suspension, the student will have up to one school day (upon return) to make satisfactory arrangements with the teacher to write the test. Failure to do so may result in the student receiving a mark of zero.

ACADEMIC DISHONESTY: Plagiarism is offering someone else's work as your own, whether one sentence or whole paragraphs, and whether from an internet or other printed source, including the writing of other students. It is also dishonest to submit your own paper as original work in more than one course. All issues of plagiarism may be referred to the vice-principal and the student receives a mark of zero. Parental contact and a suspension may also be issued.

ATTENDANCE AND LEARNING SKILLS: Attendance will be recorded and learning skills will be evaluated on the provincial report card in the following manner:

Learning Skills: In each reporting period, the teacher will report on the quality of the learning skills demonstrated by the student in each of the categories identified on the report card. These are assessed throughout the course.

Learning Skills

Works Independently
Teamwork
Organization
Work Habits/Homework
Initiative

Evaluation Symbols

E Excellent
G Good
S Satisfactory
N Needs Improvement

Attendance: Regular attendance at school plays a significant role in ensuring that students achieve to their full potential. Attendance and the number of times late for each class are recorded on the report card.

EXTRA HELP: Extra help is available! Please make arrangements ahead of time if you wish to receive extra help before/after school, or during the lunch break. A peer tutoring program is also available.

THIS COURSE SUPPORTS THE CATHOLIC GRADUATE EXPECTATIONS:

This course enables students to develop a confident and positive sense of self. Within the setting of a supportive and caring classroom community, the dignity and value of each student is respected and affirmed. Through their personal growth in reason, critical thinking and communication, students come to appreciate their ability as a God given gift. By sharing their abilities, students contribute to the good of others, in service to the classroom and school community.

THIS COURSE SUPPORTS LITERACY ACROSS THE CURRICULUM:

This course offers a challenging program of the highest quality, one that recognizes the central importance of language in learning and everyday life and prepares students for the literacy demands they will face as Canadians and members of the global community. Whatever their post-secondary destination, all students need the ability to express themselves clearly and effectively. Learning to communicate with clarity and precision, both orally and in writing, will help students to thrive in their future endeavours in the world beyond the school.

Teacher's Signature

Date

Student's Signature

Date

Parent's Signature

Date