COURSE STATEMENT
MHF 4U1

LAMBTON CENTRAL COLLEGIATE AND VOCATIONAL INSTITUTE

G. Nemcek B.A., B.Ed.
Principal

N. Jeffrey, B.Sc., B.Ed.
Vice Principal

Box 250
Petrolia, Ontario
N0N 1R0

Telephone:
(519) 882-1910

Fax:
(519) 882-1860

Welcome to Grade 12 Advanced Functions. This is a summary sheet for parents and students which outlines our course evaluation and expectations.

TEACHER: **TEXT**:   **Advanced Functions 12 (MHR)**

Course Name: **Grade 12 Advanced Functions**
Course Code: **MHF 4U**
Credit Value: 1
Ministry Document: **The Ontario Curriculum Grades 11 and 12, Mathematics, 2007.**
Development Date: **September 2007**

Mission Statement:

Teachers at LCCVI are dedicated to providing the following:
- ✓ access for all students
- ✓ a safe learning environment
- ✓ quality educational opportunities
- ✓ high professional standards.

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.

Overall and Specific Curriculum Expectations:

Refer to the Ministry of Education document entitled "The Ontario Curriculum Grades 11 and 12, Mathematics, 2007.", which is available in the main office, from your teacher, or on the Ministry of Education website (http://www.edu.gov.on.ca/eng/curriculum/secondary/subjects.html)

Course Content Outline:

POLYNOMIAL AND RATIONAL FUNCTIONS

- identify and describe some key features of polynomial functions, and make connections between the numeric, graphical, and algebraic representations of polynomial functions
- identify and describe some key features of the graphs of rational functions, and represent rational functions graphically
- solve problems involving polynomial and simple rational equations graphically and algebraically
- demonstrate an understanding of solving polynomial and simple rational inequalities

TRIGONOMETRIC FUNCTIONS

- demonstrate an understanding of the meaning and application of radian measure
- make connections between trigonometric ratios and the graphical and algebraic representations of the corresponding trigonometric functions and between trigonometric functions and their reciprocals, and use these connections to solve problems
- solve problems involving trigonometric equations and prove trigonometric identities

EXPONENTIAL AND LOGARITHMIC FUNCTIONS

- demonstrate an understanding of the relationship between exponential expressions and logarithmic expressions, evaluate logarithms, and apply the laws of logarithms to simplify numeric expressions
- identify and describe some key features of the graphs of logarithmic functions, make connections among the numeric, graphical, and algebraic representations of logarithmic functions, and solve related problems graphically
- solve exponential and simple logarithmic equations in one variable algebraically, including those in problems arising from real-world applications

CHARACTERISTICS OF FUNCTIONS

- demonstrate an understanding of average and instantaneous rate of change, and determine, numerically and graphically, and interpret the average rate of change of a function over a given interval and the instantaneous rate of change of a function at a given point
- determine functions that result from the addition, subtraction, multiplication, and division of two functions and from the composition of two functions, describe some properties of the resulting functions, and solve related problems
- compare the characteristics of functions, and solve problems by modelling and reasoning with functions, including problems with solutions that are not accessible by standard algebraic techniques

Assessment and Evaluation Strategies:

There are four achievement categories of knowledge and skills that encompass all the curriculum expectations in the Ontario Curriculum for MHF 4U1. The four categories and their value for the term are as follows:

Knowledge	30%
Thinking	20%
Communication	20%
Application	30%

The breakdown of your mark will be based on your level of achievement as follows:

Term Work – 70%

The above achievement categories will be used to evaluate tests, quizzes, assignments, etc. as part of your term mark.

Final Examination / Culminating Activity – 30%

*All students **must participate in the culminating activity sometime during the last two weeks of the semester, where applicable, and / or write a final examination based on the entire semester's work during the end of semester exam period. There are no exemptions for this exam.***

Learning Skills

Provincial Report Cards will be marked with each student's performance in the five Learning Skills areas:

1. Responsibility   2. Organization   3. Independent Work   4. Collaboration   5. Initiative   6. Self-Regulation

These Learning Skills will be assessed regularly by your teacher. They are an important statistic to understand how well students perform in the class. These are not considered in the determination of the final grade. For each of the Learning Skills one of the following achievement letters will be given:

E = Excellent   G = Good   S = Satisfactory   N = Needs Improvement

ATTENDANCE

Regular attendance is vital to the process of learning. When the process and content of learning is disrupted by irregular attendance, both the individual and his/her classmates suffer a loss of experience that cannot be entirely regained. Students who miss class will suffer in the process because their participation and achievement cannot be fully assessed. Students are expected to complete any expectations missed due to absence.

ACADEMIC HONESTY
Consequences for Academic Dishonesty on Assignments:

Professional judgment of the teacher is taken into account to determine the degree of academic dishonesty and appropriate consequences.

Grades 9 and 10 – Student will redo the assigned work. The student will receive a 25 per cent deduction on their assignment. If assignment is not completed and handed in within the time frame specified by the teacher, a mark of zero will be recorded. Subsequent occurrences may result in a mark of zero.

Grade 11 - Student will redo the assigned work. The student will receive a 50 per cent deduction on their assignment. If assignment is not completed and handed in within the time frame specified by the teacher, a mark of zero will be recorded. Subsequent occurrences may result in a mark of zero.

Grade 12 – A mark of zero will be assigned. There will be no opportunity for the assignment to be re-evaluated.
Note: Consequences may vary depending on the grade and level of a course.

Consequences for Academic Dishonesty on Tests:
1. Teacher has a conversation with the student about the incident.
2. If cheating has been determined, the student is assigned a mark of zero.
3. Parents are informed if student is under 18 years old.
4. In Grades 9 to 12, administration is informed if situation is not resolved.

Consequences for Academic Dishonesty on Exams:
1. If cheating is suspected during the exam, student is allowed to complete exam.
2. If cheating has been determined during or after the exam there will be a conference involving administration, teacher and the student. A mark of zero will be assigned.
3. Parents are informed if student is under 18 years old.

Appeals Process: Appeals will be requested through the teacher to the administration if the situation is not resolved.

LATE POLICY

The staff and students of LCCVI recognize that deadlines need to be in place to help students develop time management skills and strategies. Where in the teacher's professional judgment it is appropriate to do so, a number of strategies may be used to help prevent and/or address late and missed assignments. After many of these strategies have been implemented and documented the teacher may deduct marks for a late assignment.

Students are expected to submit all assignments within the time frame specified by the teacher. Teachers will consider extenuating circumstances when assignments are late. If an assignment is late, **10% MAY** be deducted per school day, up to a maximum of **50%**. Once assignments have been returned to students, any late submissions **MAY** receive a mark of zero.

Please sign and return this to your teacher by _____. Should you have any questions or concerns, please contact the teacher at 882-1910.

I have read and understand the handout on course expectations and evaluation policies.

Student Signature:_____   Parent/Guardian Signature: _____

Date:_____   Date: _____