



Course Documentation Outline

School of Business, Biosciences and Justice Studies

SECTION I

1. Program (s): Environmental, Chemical, Bio-Food and Bio-Technology
2. Course Name: Math 2/ Computer Applications
3. Course Code: Math1004 4.Credit Value: 4
5. Course Hours: 4

Class	Lab	Field	Other	Total
28	28			56

5. Prerequisites/Corequisites/Equivalent Courses

PR/CO/EQ	Course Code	Title
Math1003		

6. Faculty: Ron Ford Date: Nov. 2008 Effective Date: Jan. 2010
7. Dean Approval: *Dan Holland* Date: December 2009
9. Revision Number: Date: Effective Date:
- 10: Notes: Passing grade is 60%.

Section II

11. Calendar Description: Engineering and scientific applications involving the following areas are covered: determinants, exponents, logarithms, and special graphing techniques. Microsoft EXCEL will be used to generate statistical reports and graphs.

12. **Provincial Context:**

This course meets the following Ministry of Education and Training requirements:

a). **Prior Learning Assessment (PLA)**

Students may apply to receive credit by demonstrating achievement of the course learning outcomes through previous life and work experiences.

This course is eligible for challenge through the following method(s) indicated by *

Challenge Exam	Portfolio	Interview	Other	Not Eligible
Final theoretical exam and final computer assignment.				

PLAR Contact:

13. **Employability Skills emphasized in this course**

	communication - written		communication - visual		communication - oral
x	analytical		creative thinking		decision making
	interpersonal	x	numeracy	x	organizational
x	problem solving	x	technological		other (specify)

14. **Required Texts, Materials, Resources or Technical Materials Required:**

Washington, Allyn J. Basic Technical Math with Calculus (8th edition, Metric Version) Addison Wesley Longman
 Scientific calculator capable of linear regression.

15. **Evaluation Plan**

Students will demonstrate learning in the following ways:

Assignment Description	Evaluation Methodology		Due Date
Systems of Linear Equations and Exponential Functions.	Test 1	15%	Feb.10
Logarithmic functions and Regression.	Test 2	15%	Apr. 5
Excel generated reports and graphs.	2% each		Weekly
Final computer assignment		15%	TBA
Final comprehensive exam		30%	TBA

16. **Other:**

Loyalist College has a Violence Prevention policy:

- All College members have a responsibility to foster a climate of respect and safety, free from violent behaviour and harassment.
- Violence (e.g. physical violence, threatening actions or harassment) is not, in any way, acceptable behaviour.
- Weapons or replicas of weapons are not permitted on Loyalist College property.
- Unacceptable behaviour will result in disciplinary action or appropriate sanctions.
- More information can be found in the “Student Manual and Guide - Rights & Responsibilities”.

Section III

17. Curriculum Delivery, Learning Plan and Learning Outcomes:

COURSE COMPONENTS and CONTENT	RELATED LEARNING OBJECTIVES and EVALUATION CRITERIA	LEARNING ACTIVITIES and RESOURCES
Systems of Linear Equations and Determinants.	Solve systems of two linear equations and three linear equations by determinants.	Chapter 5 Excel in the Computer Lab
Exponential and logarithmic functions	Employ calculators to resolve exponential and logarithmic functions. Define properties of natural and base 10 logarithms. Solve exponential and logarithmic equations. Demonstrate graphing on logarithmic and semi-logarithmic paper.	Chapter 13 Excel in the Computer Lab TEST 1
Regression	Produce and use equations using linear and non-linear regression.	Chapter 22 Excel in the Computer Lab TEST 2