



# COURSE DESCRIPTION 2011-2012

COURSE NAME:	<b>Cultural, Social and Technical Mathematics</b>	LEVEL:	<b>Cycle 2, Year 3</b>
COURSE CODE:	<b>563-504</b>	PERIODS PER CYCLE:	<b>7</b>
TEACHER(S):	E-MAIL ADDRESS:		
<b>Ms. M. Franco</b>	<a href="mailto:franco.m@gaa.qc.ca">franco.m@gaa.qc.ca</a>		

## Subject Area Competencies (C1 and C2):

<b>C1</b>	<b>Solves a Situational Problem:</b> <b><i>a complex task that involves multiple steps and may have numerous solutions</i></b>
30%	<ul style="list-style-type: none"> <li>- The student must be able to identify information from different types of representations such as graphs, tables of value, word problems etc.</li> <li>- The student must be able to represent a situational problem using a graph, table of values, equation etc.</li> <li>- The student should be able to work out a solution using appropriate methods.</li> <li>- The student should be able to check the solution to the problem and justify all steps in the procedure.</li> <li>- The student should be able to clearly explain the solution either in written form or orally.</li> </ul>
<i>Activity Types in this competency: Activities that involve solving situational problems; LES; Complex Problems</i>	
<b>C2</b>	<b>Uses Mathematical Reasoning:</b> <b><i>applies appropriate concepts and processes</i></b>
70%	<ul style="list-style-type: none"> <li>- The student should be able to make connections and relationships between concepts and processes.</li> <li>- The student should be able to select and evaluate the suitability of the process.</li> <li>- The student should be able to choose an appropriate representation and follow a logical sequence of steps.</li> </ul>
<i>Activity Types in this competency: Tests, quizzes, Assignments, LES</i>	

## Please note the following changes in Evaluation:

### **C3 Communicates by Using Mathematical Language**

- The student will be able to understand mathematical vocabulary and symbols.
- The student will be able to interpret and summarize the ideas using mathematical language
- The student will be able to produce a clear and coherent message using appropriate mathematical or everyday language suited to the context.

**\*\*\*\*The student will be provided with feedback on this element, but this feedback will not be considered when determining the student's mark in the report card.**

**Reporting:**

	Overview and Evaluation Summary	Competencies	
		#1	#2
Term 1	<b>Optimization</b> <ul style="list-style-type: none"> <li>• System of equations</li> <li>• System of inequalities</li> <li>• Polygon of constraints</li> <li>• Optimization of a situation</li> </ul>	X	X
Term 2	<b>Graph theory</b> <ul style="list-style-type: none"> <li>• Concept of a graph</li> <li>• Types of graphs</li> <li>• Networks</li> </ul> <b>Transformations on a Cartesian Plane</b> <ul style="list-style-type: none"> <li>• Translations</li> <li>• Rotations</li> <li>• Reflections</li> <li>• Scale change</li> <li>• Dilations</li> <li>• Composite transformations</li> </ul>	X	X
	<b>Christmas Exam</b>	X	X
Term 3	<b>Equivalent figures</b> <ul style="list-style-type: none"> <li>• Area and volume of solids</li> <li>• Equivalent plane figures</li> <li>• Equivalent solids</li> <li>• Comparison of polygons</li> <li>• Comparison of solids</li> </ul> <b>Probability</b> <ul style="list-style-type: none"> <li>• Probability of an outcome</li> <li>• Conditional probability</li> <li>• Voting procedures</li> </ul>	X	X
	<b>June exam</b> * The final mark for the year is composed of the 50% of the June exam and 50% of the year's mark.	X	X

**Lunchtime Tutoring:** every Day 6

\*\*\*Students are requested to bring a bagged lunch on tutoring days to maximize our lunchtime tutorial session together. Thank you!

Tutoring location: TBA

**Please Note:**

- The expectation is for approximately **30** minutes of homework for each one hour of class time.
- Lists of outside tutors are available upon request.
- Please contact appropriate teacher by **e-mail** if there are questions or problems.
- For specific concerns, please contact the Mathematics Department Head, Ms. D.Fry at [fry.d@qaa.qc.ca](mailto:fry.d@qaa.qc.ca)