#### MATH 162 Mathematics for Computing

Your instructor	Chi-Ming Leung
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#### **Course Description**

This course is designed for students in the Computer Technology Program at Camosun College.

**Topics include**: Introduction to Logic, Laws of Logic, Conditional Statements, Algebra of Sets, Logic Circuits, Boolean Algebra, Karnaugh Maps, Logical Inference and Direct Proofs, Indirect Proofs, Induction, Counting Techniques, Introduction to Probability, Introduction to Statistics, Pictures of Data, Measures of Central Tendency, Measures of Variation, Interpretations of Standard Deviation, Expected Value, the Binomial Distribution, and the Normal Probability Distribution.

Quarter 2
3
4 hours
4 - 8 hours

Prerequisites Math 12 or Math 173 or Math 176 or Math 179 or assessment

#### Textbooks

(Bring the texts to class.)

Trushel, Peter J. and Chi-Ming Leung, *Math 162 Logic and Statistics*, Camosun College bookstore 2000. Trushel, Peter J. and Chi-Ming Leung, *Math 162 Logic Student Workbook*, Camosun College bookstore 2000. (Optional) Raymond Lai, *Math 162 Solution Key*, Camosun College bookstore 2002.

### Evaluation

Assignment:	Assignment is given on Tuesday weekly. It is due on the following Tuesday. No late assignment is accepted. Solutions should be presented in a neat and clear fashion and the paper should be well organized and stapled at the top left corner if there is more than one page. They count for 10% of the final mark.
Test:	There will be 4 tests. They count for 40% of the final mark. There is <b>NO</b> makeup. <u>Medical excuse must be accompanied by your physician's note</u> .
Final Exam:	This counts for 50% of the final mark. There is NO makeup.

The following percentage conversion to letter grade will be used:

0-49	50-59	60-64	65-69	70-74	75-79	80-84	85-89	90-94	95-100
F	D	С	C+	B-	В	B+	A-	А	A+

### Mathlab

Extra help available from assistant at the Interurban Math Lab: TEC 142  $\,$ 

### Outline

## **Logic Topics**

Hours	Reference	Topic
2	logic 1	Introduction to Logic
1	logic 2	Laws of Logic
2	logic 3	Conditional Statements
2	logic 4	Algebra of Sets
1	logic 5	Logic Circuits
2	logic 6	Boolean Algebra
1	logic 7	Karnaugh Maps
2	logic 8	Logical Inference and Direct Proofs
2	logic 9	Indirect Proofs
2	logic 10	Induction

## **Statistics and Probability Topics**

Hours	Reference	Topic
2	stats 1	Counting Techniques
2	stats 2	Introduction to Probability
1	stats 3	Introduction to Statistics
2	stats 4	Pictures of Data
2	stats 5	Measures of Central Tendency
2	stats 6	Measures of Variation
2	stats 7	Interpretations of Standard Deviation
2	stats 8	Expected Value
2	stats 9	<b>Binomial Distribution</b>
2	stats 10	The Normal Probability Distribution

### **Office hours:**

# As posted or by appointment

	Monday	Tuesday	Wednesday	Thursday	Friday
08:30-09:20	MATH 260 CC 104	MATH 260 TEC 175		MATH 260 CC 104	MATH 260 CC 104
09:30-10:20	MATH 260 CC 104	MATH 260 TEC 175		MATH 260 CC 104	MATH 260 CC 104
10:30-11:20	Office Hour	Office Hour		Office Hour	Office Hour
11:30-12:20	Office Hour			Office Hour	Office Hour
12:30-13:20	MATH 162 TEC 174			MATH 162 TEC 174	MATH 162 CBA 101
13:30-14:20		MATH 162 TEC 174			
14:30-15:20		Office Hour			
15:30-16:20					

## Jan 04, 2005 --- March 18, 2005