BRANDON UNIVERSITY

**62:152 CONTEMPORARY MATHEMATICS**

# COURSE OUTLINE Winter2017

**Instructor:** Mrs. Kathleen Nichol

Room 2-11 Brodie Bldg.

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**Classes:** Slot 4 in Room 1-53 BB

**Labs:** Tuesdays, in Room 1-52 BB

1:40 a.m. – 3:30 p.m.

**Textbook:** *Mathematical Reasoning for Elementary Teachers*,

*7th, 6th or 5th Edition*

by Long, DeTemple and Millman Hard back: $204.95

Looseleaf: $174.50

**Supplies Needed:** Calculator.

## **Course Description**: Contemporary Mathematics is designed for students who require the mathematical concepts and techniques which form the elementary school curriculum. Prerequisites are grade 12 mathematics or 62:090 or 62:091.

**Evaluation Method:** Four tests 40%

(if all four tests are written, the lowest will be dropped)

Midterm exam 20%

Final exam 40%

100%

The obtained rounded percentage points will be translated into letter grades via the following schedule:

A+ 90 - 100

A 85 - 89.9

A- 80 - 84.9

B+ 75 - 79.9

B 70 - 74.9

C+ 65 - 69.9

C 60 - 64.9

D 50 - 59.9

F 0 - 49.9

**A mark of 45% or better on the final exam is required in order to pass the course.**

**Special Note:** Tests must be written at the time indicated on this outline. There will be no special arrangements made for writing at a different time. If a test is missed for medical reasons, documented evidence must be produced and a special pro-rate may be arranged. It is to your benefit to write all the tests since this is the best way to learn the material in the course and keep up with the work.

**Examinations and Assignments**

**Tests:** Five tests will be written – four are one-hour tests in the last half of the lab period; the midterm is a 110-minute cumulative test taking the full lab period.

**Assignments:** Six assignments will be handed out. These are in two parts:

**(1)** questions to be done, written up, and **handed in on the test day, with the test**

**(2)** several questions for you to do to prepare you for the test.

(**Answers to blue numbered problems** appear in the back of your text.)

|  |  |
| --- | --- |
| Tests | **Date of each test** |
| Test 1 | Tuesday, January 24, 2:15 – 3:30 p.m. |
| Test 2 | Tuesday, February 7, 2:15 – 3:30 p.m. |
| Test 3 Midterm | Tuesday, February 28, 1:40 – 3:30 p.m. |
| Test 4 | Tuesday, March 14, 2:15 – 3:30 p.m. |
| Test 5 | Tuesday, March 28, 2:15 – 3:30 p.m. |
| Final Exam | Saturday, April 22, 9:00 a.m. – 12:00 noon |

**Resources**

**Laboratory periods**: Each Tuesday, 11:40 a.m.-1:30 p.m., in Room 1-52 BB, you have a lab period, to work on the assignments with assistance available. Attendance is expected.

**The Math Centre** is located in Room 102 McKenzie Bldg. Advisor hours will be posted on the window of Room 1-81 and on the door of the Math Centre.

**The Moodle Site for this course:** The Lab Assignments,Reviews forTests and the Test Answer Keys will be posted. Go to <http://wolf.brandonu.ca/moodle/> . The course password is “caribouandcranes”.

**Topics:**

Chapter 1: Thinking Critically

Chapter 2: Sets and Whole Numbers

Chapter 3: Numeration and Computation

Chapter 4: Number Theory

Chapter 5: Integers

Chapter 6: Fractions and Rational Numbers

Chapter 7: Decimals, Real Numbers & Proportional

Reasoning

Chapter 8: Algebraic Reasoning and Coordinate   
 Geometry

Chapter 9: Geometric Figures

Chapter 10: Measurement: Length, Area and Volume

Chapter 11: Transformations, Symmetries, and Tilings

Chapter 12: Congruence, Constructions, and Similarity

Chapter 13: Statistics: The Interpretation of Data

Chapter 14: Probability

**Learning goals:**

\* you will see/hear/discuss/

work through the concepts so you understand them

\* you will see/hear/discuss/

work through different ways to explain concepts so you can teach them to others

\* recognize and develop own learning style or styles

\* enjoy the math

\* succeed