# Math 1051: Functions and Trigonometry

# Class: M/W/F 11:30 AM – 12:30 PM, RB3044

# Lab: Tuesday, 2:30 – 4:30 PM, RB2044

Aaron Pearson

apearson@lakeheadu.ca

Office Location: Ryan Building 2006

Office Hours: Friday, 1:00 – 3:00 PM, or by appointment.

**Course Description:** Math 1051 covers the essential mathematics found in Grade

12 Advanced Functions. Topics include functions and graphs, trigonometric identities, quadratic functions, and inequalities.

**Prerequisite(s):** None.

**Text:** *Essentials of Technical Mathematics with Calculus*, 2nd Edition **Author(s):** Richard Paul and M. Leonard Shaevel; **ISBN-13:** 978-0132891998 **Grade Distribution:**

|  |  |
| --- | --- |
| Assignments | 10% |
| Midterm Exam 1 (Monday 5 October) | 25% |
| Midterm Exam 2 (Monday 9 November) | 25% |
| Final Exam | 40% |

**A note on grading:** Your final mark will be calculated in two ways: I will either use the weighting given above, or drop the lowest midterm mark, and move its weight to the final. Your mark will be the higher of the two.

**Assignments:** There will be ten weekly assignments, due on Mondays at the beginning of class. The lowest homework mark will be dropped, and the remaining nine assignments will be used in calculating your final grade. Please note that late assignments will not be accepted. Assignments should be stapled once at the top left, and include the class name and assignment number, as well as your name and student number, on the first page. Students are encouraged to work together to understand the concepts in each assignment, but copying is not allowed.

1

**Tentative Course Outline**:

The weekly coverage might change, as it depends on the progress of the class. However, you must keep up with the reading assignments. Note these important dates:

* Monday 5 October: Midterm Exam 1 (in class)
* Monday 12 October: Thanksgiving—no classes
* Friday 6 November: Last day to drop without academic penalty
* Monday 9 November: Midterm Exam 2 (in class)
* Tuesday 2 December and Wednesday 3 December: Winter Term Study Break
* Wednesday 9 December: First day of final exams
* Saturday 19 December: Last day of final exams
* Sunday 20 December: Contingency date for exams

|  |  |
| --- | --- |
| **Week ending** | **Content** |
| 18 September | • Course overview and preliminary topics, such as operations on the real numbers. |
| 25 September | • Linear equations |
| 2 October | • Functions and graphs  • Review for Midterm 1 |
| 9 October | • Trigonometric identities |
| 16 October | • Trigonometric functions  • No classes on Thanksgiving, **Monday 13 October** |
| 23 October | • Trigonometric functions and identities |
| 30 October | • Trigonometric functions, inverse trigonometric functions |
| 6 November | • Sequences and series  • Review for Midterm 2  • Last day to drop without academic penalty is **Friday 6 November** |
| 13 November | * Sequences and series continued |
| 20 November | • Inequalities |
| 27 November | • Quadratic Equations |
| 4 December | • Review for Final Exam |