## **MA238 Midterm Information**

Thursday, February 25, in class.

The midterm will be written from the tutorial MyLS page and submitted to the tutorial Gradescope page.

You can start the exam as early as 9:45. You need to be finished all the checks and actually working on the exam by 10:15 and you will be locked out of the test.

You will have 10 minutes after the test finishes to take photos/scan your test, make a single PDF and upload to Gradescope.

If you have any technical problems during the exam, email <a href="mailto:examquestions@wlu.ca">examquestions@wlu.ca</a>
If you make a simple mistake such as clicking "submit" before you have completed the test, I can help. <a href="mailto:kcameron@wlu.ca">kcameron@wlu.ca</a>

8 questions, some with several parts

60 marks

90 minutes

No aids allowed – **no calculators** – you can leave answers in the form  $2^7 + (3)(8) - 32$ 

You will write your answers on a 5-page template which is posted and has been emailed to you. You will need to print or copy this out.

The cover page has a declaration. You do not need to print the cover page, but you must sign the first page of the template indicating that you agree to the declaration.

You are allowed the 5 answer pages and **5 pieces of scrap paper**. You can use the scrap paper for answers if needed.

The test covers MODULES (1) through (9.2) and a little on Graph Colouring (10.0) These modules are in Graph Theory A and Graph Theory B

## **Approximate Breakdown by Type of Question**

Draw graphs with certain properties or types of graphs	8
Mechanical	14
Short answer	9
State theorem	9
Give reason or give explanation	6
Proofs	11
Modelling	3

- Mechanical means doing some calculation like calculating the number of edges of a graph, or given an adjacency matrix, draw the graph, or vise versa, or give an Euler circuit in a graph, or find an isomorphism, or determine whether a graph is planar, etc. It could be a calculation that is part of an explanation.
- Short answer means the answer is a word or one sentence, and includes definitions.
- The proofs are ones you have seen.