

## **Information on relevant exam questions for Term 1 of Math 50004 as revision for the May Examination**

The May Examination is three hours long and examines both Term 1 and Term 2 (Differential Equations) material.

You may recall that the material for Term 1 is split into Vector Calculus (lectures 1-16) and Calculus of Variations (lectures 17-20). My part of the May exam will consist of three questions, with the Calculus of Variations material examined in the third of these questions. Questions 4-6 will be on Differential Equations material.

For relevant exam questions on Term 1 material, the examination papers for Math50004 for 2021-23 are on Maths Central.

For years earlier than that, the Vector Calculus material was examined as part of M2AA2 (Multivariable Calculus) and can also be found on Maths Central (just follow the links from Math50004). The exam papers for that course from May 2013 – May 2020 were set by me. The Vector Calculus questions are questions 1 and 2 on those papers (please ignore questions 3 and 4).

The Calculus of Variations element of the exam will be similar to the style of questions on Problem Sheet 5 and the extra questions for tutorial week 10.

M2AA2 exams prior to 2013 are also available on Maths Central. Although they were not set by me there are many relevant questions as indicated below.

2012: Q1,2,3

2011: Q1(i),2,3

2010: Q1,2,3(i),4(i),(ii)

2009: Q1,2,4

2008: Q1,2,3

These include suitable Calculus of Variations questions on the 2008, 2009 and 2010 papers.

Good luck with the exam,

Dr Walton.