



## OpenBook Summer Examination 2019/2020

<b>Exam Code(s)</b>	4BMS2, 4BS2, 1AL1
<b>Exam(s)</b>	Fourth Science & Masters Examination
<b>Modules</b>	Geometric Foundations of Data Analysis I
<b>Module Codes</b>	CS4103
<b>Paper</b>	1
<b>External Examiner(s)</b>	Prof. Thomas Brady
<b>Internal Examiner(s)</b>	Prof. Graham Ellis Dr Emil Sköldbberg
<b><u>Instructions:</u></b>	Students should attempt ALL FOUR questions. Q1, Q2, Q3 carry 28 marks each. Q4 carries 16 marks.
<b>Duration</b>	2 Hours
<b>No. of Pages</b>	4 (including this page)
<b>Discipline</b>	Mathematics
<b>Requirements:</b>	
Log Tables	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Calculator Optional	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

In submitting this work I confirm that it is entirely my own, and that **any notes/online resources accessed during the exam have been acknowledged**. I acknowledge that I may be invited to online interview if there is any concern in relation to the integrity of my exam, and I am aware that any breach will be subject to the University's Procedures for dealing with breaches of Exam Regulations.

**Q1.** Attempt **TWO** from (a), (b) and (c).

(a)

(b)

(c)

**Q2.** Attempt **TWO** from (a), (b) and (c).

(a)

(b)

(c)

**Q3.** Attempt **TWO** from (a), (b) and (c).

(a)

(b)

(c)

**Q4.** Attempt **EITHER** (a) **OR** (b).

(a)

(b)