Communicating Maths Information

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Contents

Welcome

This document contains an overview of important dates and details for communicating maths students 2023. This document will update as the semester progresses.

General Course Overview

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Week Begining

Focus

6 Feb 23

Input from staff

13 Feb 23

20 Feb 23

27 Feb 23

6 Mar 23

Output from students

13 mar 23

20 Mar 23

27 Mar 23

3 Apr 23

Easter break

10 Apr 23

17 Apr 23

Mentoring

24 Apr 23

Hand in this week

1 May 23

Week by week detail

Week 1 (WB 6/2/23)

Thursday 9/2/2023, 12:15-13:05 in 8W2.30

Welcome.

What is Maths communication?

Course information.

Friday 10/2/2023, 12:15-14:05 in 1W2.104

Exploring the existing maths communication out there.

Setting up the Compare and Contrast formative assessment.

Assessment information

Assessment credit breakdown.

The Assessment of the course will be based around two Mathematical Interactions (MI's).

A **Mathematical Interaction** (MI) is defined as the communication of mathematics to an audience.

Typically:

- MI1 is an Ri Masterclass, planned and delivered as a group.
- MI1 is an option from video, article or school placement, planned and delivered as an individual or pair.

Each of the two MI's will be summatively assessed in two parts:

A) The Live And Recorded Delivery 25% of the overall course mark

B) The Written Evaluation 25% of the overall course mark

Overall this is how the marks for the course will be allocated:

Delivery

Evaluation report

Mathematical Interaction 1

25%

25%

Mathematical Interaction 2

25%

25%

The assessment criteria for each part can be found in Assessment submission topic file on moodle or in the list below.

Coursework cover sheet.

Set: *When issued: 9.2.23 12:15.*

Due: *Deadline: 28.4.23 11:59pm.*

Estimated time required: The coursework should take no more than *30 hours* to complete.

Submission: *Submit to the moodle page as a PDF; Your candidate name and number be included*

Conditions: *The report is an individual submission*

Value: *This written assignment carries 50% of the total marks for the course.This assignment will be marked out of 50 where 25 marks are available for each section detailed on the assessment criteria.*

Length: There is a word count of 2500 words, 1250 words for your evaluation of Mathematical Interaction 1 and 1250 word for your evaluation of Mathemametical Interaction 2.

Support and advice: *You can ask you mentor for advice up until the deadline day in the designated mentoring sessions.*

Feedback: You will receive your marks for the unit at the same time as your other modules.

Late submission of coursework: If there are valid circumstances preventing you from meeting the deadline, your Director of Studies may grant you an extension to the specified submission date, if it is requested before the deadline. Forms to request an extension are available on SAMIS.

- If you submit a piece of work after the submission date, and no extension has been granted, the maximum mark possible will be the pass mark.
- If you submit work more than five working days after the submission date, you will normally receive a mark of 0 (zero), unless you have been granted an extension.

Academic integrity statement: Academic misconduct is defined by the University as "the use of unfair means in any examination or assessment procedure". This includes (but is not limited to) cheating, collusion, plagiarism, fabrication, or falsification. The University's Quality Assurance Code of Practice, QA53 Examination and Assessment Offences, sets out the consequences of committing an offence and the penalties that might be applied.

Contact details:

Tamsin Smith
Room: *6W1.28*
E-mail: *t.l.smith@bath.ac.uk*

Group Contributions.

Group Contribution Rating (GCR)

Group members must agree on one another's relative contribution to their coursework. We will assume that groups agree to an even allocation of marks across the group unless a Group Contribution Form (GCF) is submitted to the unit convener.

The Group Contribution Form (GCF)

The GCF is available on the Moodle page and records how well individual members have contributed to the coursework throughout the coursework period. The final GCF is a one-page document with every group member's name, signature and agreed assessment of their percentage contribution to the coursework over the whole coursework period. In the case that recorded percentage contributions are exceptionally high or low, the GCF document should include a brief paragraph of explanation. (An example can be found Assessment submission topic file) The signed GCF must be submitted to the unit convener after the live delivery. If no agreement can be reached on the contributions of individual members, the group can hand in more than one GCF, but members will be required to produce evidence in a hearing with the unit convener to support their argument. In such an eventuality, the Director of Teaching may also be involved. The GCF will directly inform the allocation of marks to each individual group member.

Assessment Criteria.

Live and recorded delivery descriptors.

Grid A will be used to mark the content of each Mathematical Interaction (which could be one of the below items):

- COMPULSORY - Masterclasses: Live delivery - in groups
- OPTION - Written article suitable for Chalkdust, published on Medium - individual work
- OPTION - Video published on YouTube, e.g. similar in style to Numberphile, StandupMaths, 3Blue1Brown. Maximum 2 in group.
- OPTION - School placement to be arranged in local school (limited availability)

Written Evaluation descriptors

Grid B will be used to mark the written evaluation of each Mathematical Interaction.

Grid A

Mark	Mathematical Content (e.g. equations, derivations, proofs and correctness/appropriateness of these)	Communication with media and demonstration (e.g. slides, physical props, board use, graphics/animations, handouts etc)	Style and Delivery(e.g technique, audience handling, confidence, clarity, surprise, humour, variety, tone)	Structure and pacing (e.g sections, pace, flow, narrative, coherence)	Appropriateness for Audience
5	Detailed and consistent understanding of the content. Fully correct and appropriate mathematics. Awareness of wider context demonstrated.	Fully developed use of media. Successful, creative, or original demonstrations.	Well developed general style and delivery Delivery is clear, and engages well with the audience, using a range of successful techniques.	Fully appropriate structure and pace. Well chosen quantity and ordering of material gives a complete narrative.	Fully developed understanding of the intended audience and their prior knowledge. Progression of the material, from an appropriate entry level, is successfully managed and enhances audience interest/experience.

Mark	Mathematical Content (e.g. equations, derivations, proofs and correctness/appropriateness of these)	Communication with media and demonstration (e.g. slides, physical props, board use, graphics/animations, handouts etc)	Style and Delivery(e.g technique, audience handling, confidence, clarity, surprise, humour, variety, tone)	Structure and pacing (e.g sections, pace, flow, narrative, coherence)	Appropriateness for Audience
4	Detailed understanding of the content. Mostly correct and appropriate mathematics.	Mostly developed use of media. Mostly successful, creative, or original demonstrations.	General style and delivery is well developed in places Delivery engages well with the audience, using some successful techniques	Appropriate structure and pace. Quantity and order of material fits structure and aids narrative.	Mostly developed understanding of the intended audience and their prior knowledge. Progression of the material achieved, from an appropriate entry level.
3	Some misunderstanding of the content is apparent. Some mathematical inaccuracies or omissions.	Some media used inappropriately, otherwise resources and media are adequate Some successful demonstrations.	Some good style and delivery. Occasional problems with clarity or audience engagement.	Some evidence of structure and some sections well paced. Some problems with quantity or ordering of material which affect the narrative.	Some understanding of the intended audience and their prior knowledge. Some progression of material is successfully managed. Some material occasionally inappropriate for the audience

Mark	Mathematical Content (e.g. equations, derivations, proofs and correctness/appropriateness of these)	Communication with media and demonstration (e.g. slides, physical props, board use, graphics/animations, handouts etc)	Style and Delivery(e.g technique, audience handling, confidence, clarity, surprise, humour, variety, tone)	Structure and pacing (e.g sections, pace, flow, narrative, coherence)	Appropriateness for Audience
2	Significant misunderstanding of the content is apparent. Significant mathematical inaccuracies or omissions	Significant problems with use of media, even if some are used well. Significant problems with demonstrations	Significant problems with style or delivery, with negative consequences for audience engagement (observed or likely)	Minimal structure apparent or significant problems with pacing. Significant problems with quantity or ordering of material which affect the narrative.	Minimal understanding of the audience and their prior knowledge. Significant problems with level of material and progression.
1	Very limited understanding of content Minimal mathematical content	Very limited use of media. Very limited demonstrations.	Very limited style and delivery throughout, resulting in continued audience disengagement (observed or likely)	Very limited or no structure Very limited pacing. No overarching narrative.	Very limited understanding of the audience. Inappropriate level and progression of material

Mark	Mathematical Content (e.g. equations, derivations, proofs and correctness/appropriateness of these)	Communication with media and demonstration (e.g. slides, physical props, board use, graphics/animation, handouts etc)	Style and Delivery(e.g technique, audience handling, confidence, clarity, surprise, humour, variety, tone)	Structure and pacing (e.g sections, pace, flow, narrative, coherence)	Appropriateness for Audience
0	No mathematical content	No use of media or demonstrations	No presentation or work submitted	No presentation or work submitted	No indication or awareness of the intended audience or their level.

Grid B

Marks	Aims, Objectives and Intentions	Collection and analysis of Feedback	Positive reflections	Potential Improvements	Overall quality of written communication
5	Fully appropriate aims and objectives that are clear, attainable, and appropriate. Fully developed discussion of intentions with reasons, and the specific	Fully developed plan for collecting appropriate feedback from the audience. Detailed analysis of the quantity and quality of feedback received using meaningful summary techniques.	Fully developed discussion of what went well, and why. Clear and detailed reflection on success of meeting the overall aims and objectives. Characterised by mature reflective judgement on the impact of the work.	Fully developed discussion of what did not work well, and how things could be improved. Clear reflection on failure of meeting the overall aims and objectives. Characterised by mature reflective judgement on the impact of the work.	Ideas expressed clearly, concisely, and with excellent structure.

Mark	Aims, Objectives and Intention	Collection and analysis of Feedback	Positive reflections	Potential Improvements	Overall quality of written communication
4	Appropriate aims and objectives that are mostly clear, attainable, and appropriate. Appropriate discussion of intentions.	Developed methods of feedback collection feedback from the audience. Analysis of the quantity or quality of feedback received using meaningful summary techniques.	Developed discussion of what went well, and why. Clear reflection on success of meeting the overall aims and objectives.	Developed discussion of what did not work well Clear reflection on failures of meeting the overall aims and objectives.	Ideas are generally expressed well, and with appropriate structure.

Marks	Aims, Objectives and Intentions	Collection and analysis of Feedback	Positive reflections	Potential Improvements	Overall quality of written communication
3	Fairly clear aims and objectives some of which are clear, attainable, and appropriate. Partial discussion of intentions/reasons.	Some evidence of feedback collected, but of varying quality and usefulness. Some discussion/analysis, possibly presented inefficiently.	Some awareness of what went well and only partial discussion of the reasons for this.	Some awareness of what did not work well and only partial discussion of the reasons for this.	Ideas are generally expressed fairly clearly, with reasonably appropriate structure.

Mark	Aims, Objectives and Intentions	Collection and analysis of Feedback	Positive reflections	Potential Improvements	Overall quality of written communication
2	Mostly unplanning for helpful aims and objectives, which are not clear, obtainable or appropriate. Minimal discussion of intentions/reasons.	Minimal feedback leading to little discussion or analysis.	Minimal awareness of what went well Obvious success points missed or not discussed.	Minimal awareness of what went did not work well Obvious failure points missed or not discussed	Ideas are rarely expressed coherently. Structure is less appropriate.

Marks	Aims, Objectives and Intentions	Collection and analysis of feedback	Positive reflections	Potential Improvements	Overall quality of written communication
1	Aims or objectives are unclear or unobtainable. Very limited discussion of intentions/reasons.	Very limited or no feedback collection and little or no discussion or analysis.	Very limited awareness/reflection on any success.	Very limited awareness/reflection on any failure.	Ideas are expressed incoherently. Limited structureD

Mark	Aims, Objectives and Intentions	Collection and analysis of Feedback	Positive reflections	Potential Improvements	Overall quality of written communication
0	No aims or objectives set	No attempt at feedback collection, discussion, or analysis.	No awareness of positive aspects of work.	No awareness of negative aspects of work..	No written work submitted.

Masterclasses

Bath 18.2.23.

Date: *18.2.23.*

Time: *10:00-12:30.*

Location: *Bath University Campus.*

Audience: *Year 9, approx 100 participants.*

University Mentor: *Tam.*

Masterclass Contact *Chris Budd mascjb@bath.ac.uk.*

Group Members: *Joy Boh, Ashley Higgs, Chloe Howcroft, Lucia Lopez, Haranja Sivaneswaran, Jodie Young.*

Oxford 18.2.23.

Date: *18.2.23.*

Time: *10:00-12:30.*

Location: *Oxford Brookes Campus.*

Audience: *Sixth form, approx 30 participants.*

University Mentor: *Ben.*

Masterclass Contact *Sam Kamparis s.kamperis@brookes.ac.uk.*

Group Members: *Tom Eves, Zoe Fairfax, Alankrit Mata, Anna Quinn, Rhea Shah.*

Holyport College 18.2.23.

Date: *18.2.23.*

Time: *9:30-12:00.*

Location: *Holyport College.*

Audience: *Year 9, approx 45 participants.*

University Mentor: *Waleed.*

Masterclass Contact *Daniel Hubbard rimasterclasses@holyportcollege.org.uk.*

Group Members: *Mira Balaji ,Kamilla Bugno,Ewan Partington, Samantha Perryman, Olivia Wiseman.*

Bath 25.2.23.

Date: *18.2.23.*

Time: *10:00-12:30.*

Location: *Bath University Campus.*

Audience: *Year 9, approx 100 participants.*

University Mentor: *Ben.*

Masterclass Contact *Chris Budd mascjb@bath.ac.uk.*

Group Members: *Abigail Bennett, Tosia Ciszek, Mirren Derby,Timi Folaranmi, Molly Maguire-King, Tali Shear*

Exeter 25.2.23.

Date: *18.2.23.*

Time: *9:30-12:00.*

Location: *Exeter School of Maths.*

Audience: *Year 9, approx 30 participants.*

University Mentor: *Tam.*

Masterclass Contact *Sophie Brown SophieBrown@exeterms.ac.uk.*

Group Members: *Sam Cheung, Lana Gregory, Ella Hidveghy, Rebecca Knight, Andrew McGrath.*

School Placements

A list of the opportunities that you can opt into for your second Mathematical Interaction will appear below.

Please note that you need to have opted to do this, by emailing t.l.smith@bath.ac.uk by 11:15 am on 17.2.23