



## Course Enhancement Questionnaire Report

Advanced Mathematical Economics

### USING THE REPORT

Standardised Course Enhancement Questionnaires provide a rich source of information on the experience of students within individual courses and across programmes and Schools.

Alongside other sources of information, such as external examiner reports, staff judgement, and University level surveys, course enhancement questionnaires provide insights that can be used to better understand and hence enhance learning, teaching and assessment.

Further information can be found at:

<https://www.ed.ac.uk/staff/data-matters/course-enhancement-questionnaire>

### HOW IS THE REPORT PRESENTED?

Each of the core and staff questions uses a scale of 1-5; the scale is located at the bottom of the graph.

1 = definitely disagree, 2 = mostly disagree, 3 = neither agree nor disagree, 4 = mostly agree, 5 = definitely agree.

For each core and staff question, a histogram is displayed.

This is presented on the report by displaying a percentage scale at the top of each graph denoting the percentage respondents who selected that option.

The results are presented with the mean, median and standard deviation.

Information on definition of terms can be found at the following link:

<https://www.ed.ac.uk/staff/data-matters/guidance-ceq-data/definition-of-terms>

## THINGS TO BE AWARE OF WHEN INTERPRETING THESE RESULTS

### **Response rates:**

The response rate and count is included within the report. The response rate is expressed as a percentage with the count as the number of students. Please consider how representative this is of the cohort when undertaking analysis of the report.

### **Sample size:**

Please consider the overall size of the cohort e.g. if the cohort is 100 students and the response rate is 50% this is likely to be more representative than an 80% response rate from 10 students, where one or two responses can cause significant fluctuations in the average.

### **Confidence intervals:**

Please be aware that confidence intervals are not currently included within this report.

### **Context:**

Please be aware of the context the course is taught within, for example the time a course is delivered, the subject matter, or whether a course is mandatory or an elective for students.

## HOW ARE THE RESULTS DISTRIBUTED?

Information on the distribution of Course Organiser, Core, School-Specific and Staff reports can be found in the Course Enhancement section of the Data Matters website:

<https://www.ed.ac.uk/staff/data-matters/course-enhancement-questionnaire>

It is important that colleagues use the website to make themselves aware of their responsibilities with data gathered through CEQs.

## UNCONSCIOUS BIAS

Information about overcoming unconscious bias can be found at the following link:

<http://edin.ac/1RLBhYK>

2021\_ECN\_School of Economics  
 Advanced Mathematical Economics  
 UG; Credit Level: 10; Credits: 20; NYT: 3  
 Course Organiser: Dr Andrew Clausen



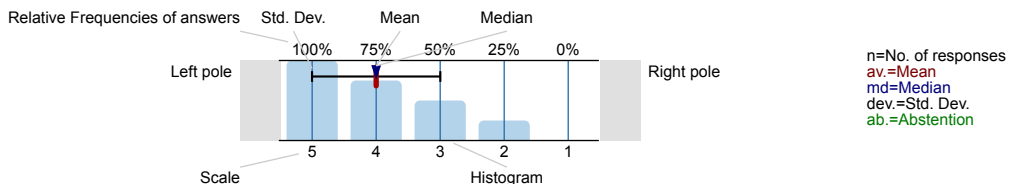
Overall No. of Responses: 23; Overall Response Rate: 50%

Advanced Mathematical Economics [ECNM10085\_20-21\_SV1\_SEM1\_ONLINE]

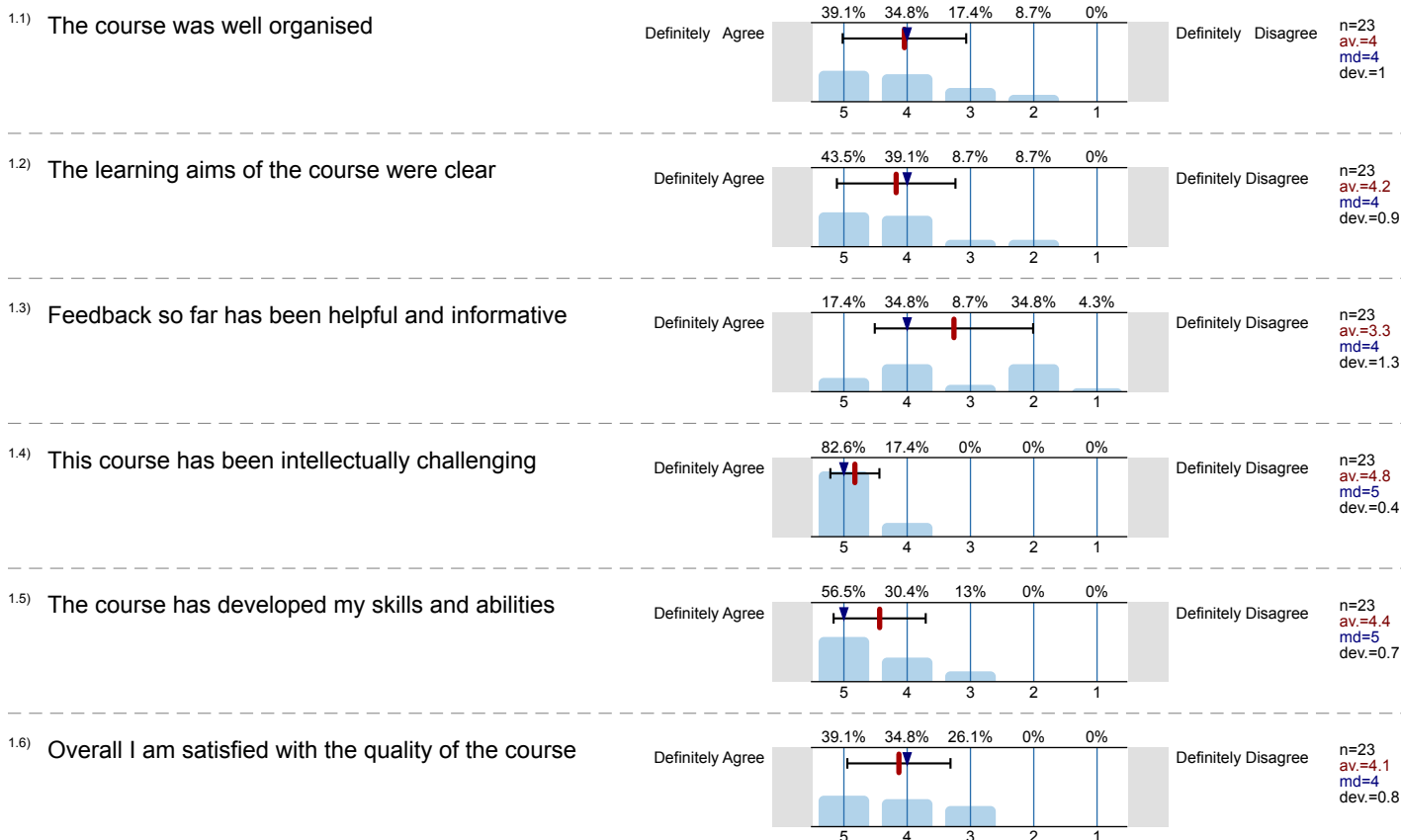
Survey Results

Legend

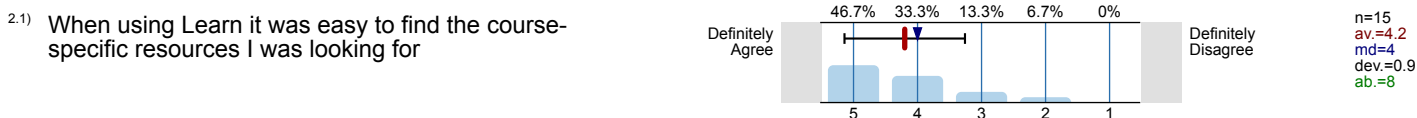
Question text



1. Advanced Mathematical Economics [ECNM10085\_20-21\_SV1\_SEM1\_ONLINE\_CACORE19] -



2. Advanced Mathematical Economics -



3. Advanced Mathematical Economics -

3.1) Did you have an SOA arranged by the Student Disability Service?

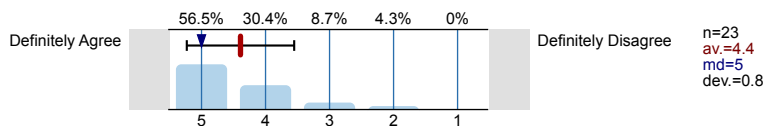


3.2) Were the adjustments agreed in your SOA, either automatically or after you asked, implemented as expected by the School delivering this course?

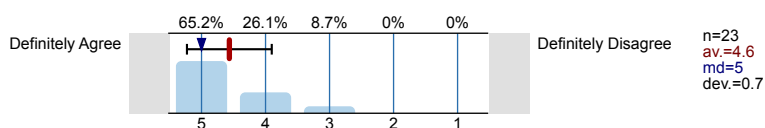


6. Dr Andrew Clausen -

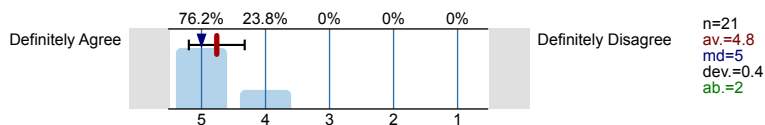
6.1) was organised and well prepared



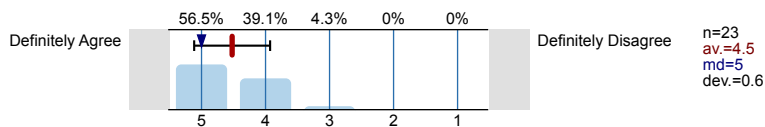
6.2) was good at explaining the subject



6.3) was approachable and willing to help

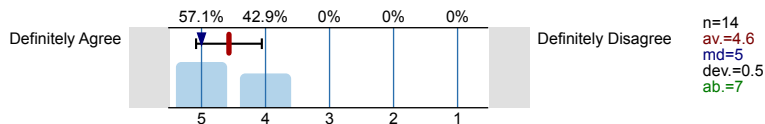


6.4) stimulated my interest in the subject

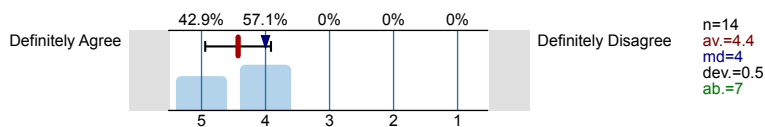


7. Mr Fabian Germ -

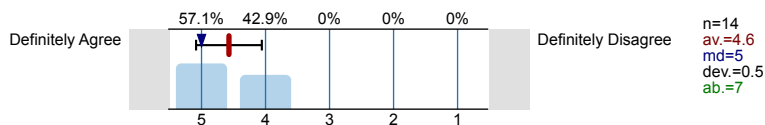
7.1) was organised and well prepared



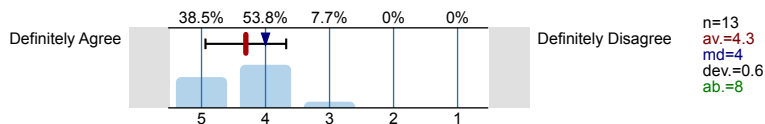
7.2) was good at explaining the subject



7.3) was approachable and willing to help

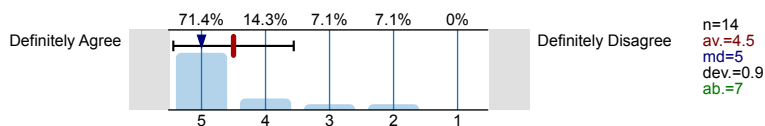


7.4) stimulated my interest in the subject

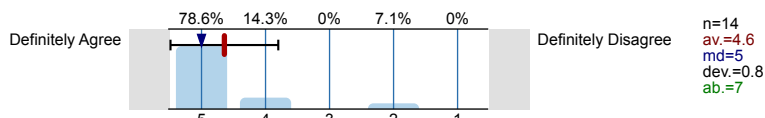


8. Ms Emily Roff -

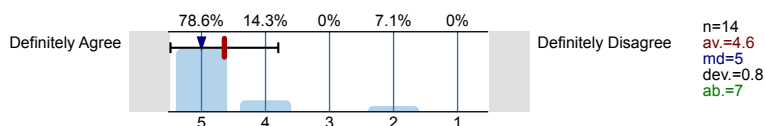
8.1) was organised and well prepared



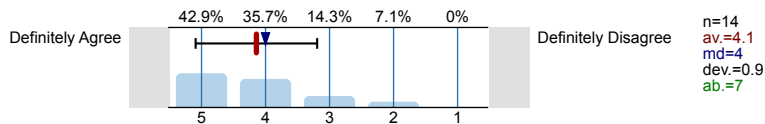
8.2) was good at explaining the subject



8.3) was approachable and willing to help

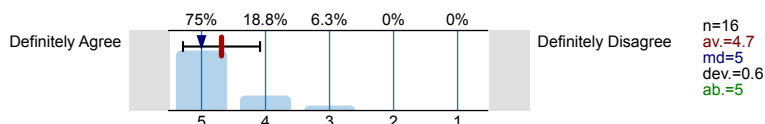


8.4) stimulated my interest in the subject

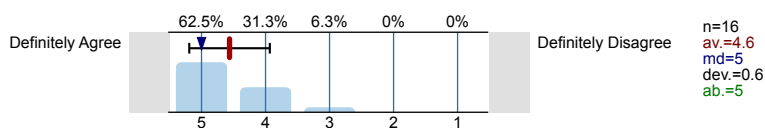


9. Mr Christopher Stapenhurst -

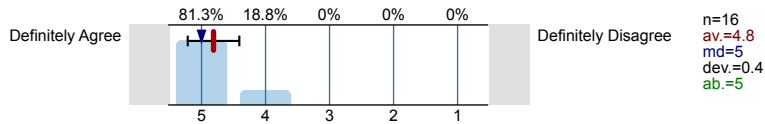
9.1) was organised and well prepared



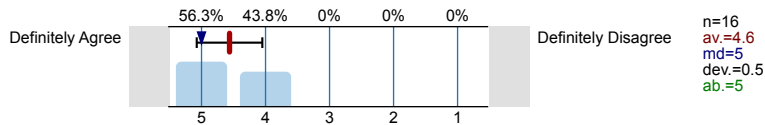
9.2) was good at explaining the subject



9.3) was approachable and willing to help

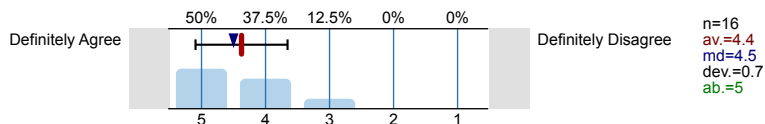


9.4) stimulated my interest in the subject

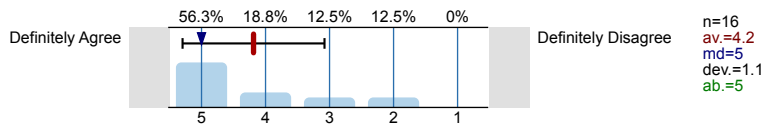


10. Mr Reuben Wheeler -

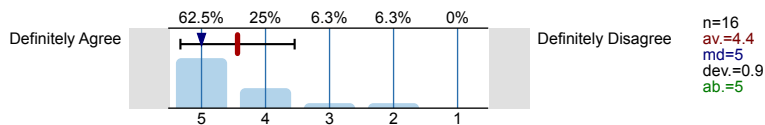
10.1) was organised and well prepared



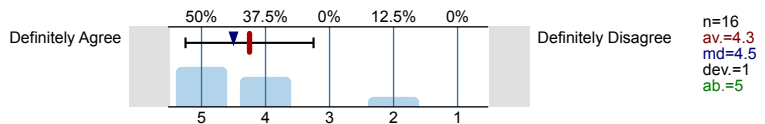
10.2) was good at explaining the subject



10.3) was approachable and willing to help



10.4) stimulated my interest in the subject



# Comments Report

## 1. Advanced Mathematical Economics [ECNM10085\_20-21\_SV1\_SEM1\_ONLINE\_CACORE19] -

1.7) What did you find most valuable about the course?

- - The notes
    - the (recent) recordings
    - the option to sit the exam in May!! I find that extremely thoughtful.
  - As a mathematics joint honours student this course introduces a degree of rigour that i was looking for in economics.
  - Developed my maths skills, something I'll definitely need to advance my studies in economics.
  - Firstly the material that this course covers are a must-do for an economics degree. I think this course should not even be an optional course. Its very important for an economics undergraduate to be able to understand basic analysis and intuition. The notes are well set out, plenty of exercises to work on with solutions provided. Piazza was running very well. The lecturer was very responsive.
  - Learning proofs
  - The content was really interesting and some complex mathematical concepts were very well explained by Andrew.
  - The course content was very interesting. As I have never taken a maths course like this in the past I feel like I learned a lot and a lot of concepts that I had come across before but never really understood were clarified.
- I like the course's focus on proofs because it dives deeper into theorems and why there are true. Rather than just assuming what we are told is true (as in High School maths) we had the ability to gain a deeper understanding of mathematics.
- Although learning was really different this year due to COVID-19 restrictions, I found the online tutorials really helpful. It was really nice that the tutors had a tutor room where we could reach out and ask for help. It enabled my group to focus on solving problems and have guidance when we needed it. The tutors were also especially helpful, Emily, Christopher and Fabian in particular were always open to answering our questions and tried their best to explain the concepts. They were also able to give me some feedback on my proofs which I really appreciated.
- The course is definitely clear in its objectives and overall well-organised. The tutors and Andrew are very motivated to help us understand and are clearly passionate about the content. The notes and website are also very helpful.
  - The in person tutorials.
  - The in-person tutorials which I started attending towards the end of the semester I really enjoyed. I found it great to be able to show the prof. my work, and have them use paper and pen or gestures to give feedback. I did not find the online environment at all satisfactory for this.
  - The mathematical thinking developed is very useful and the lectures were generally useful in introducing and delivering new topics
  - The tutorials and tutors were excellent. The videos recorded by Andrew were also incredibly helpful and I appreciated the structure of the notes.
  - There's a lot of available resources.
  - Tutorials are by far the most helpful part of the course. They are a useful opportunity to get feedback on homework and work through the problem sets with others.
  - Tutorials were really helpful. I would highlight Ms Emily Roff & Mr Chris Stapenhurst , always happy to help and very clear in explaining particular problems.
  - Tutorials, Emily Roff's sessions where she explained proofs, the lecture notes
  - Weekly homework (helped with engagement).
  - direct link between high level maths and its economic applications

1.8) What improvements, if any, would you make to the course?

- -Firstly, it would be very helpful if we received feedback on our homework apart from the feedback we receive during the tutorials. It is quite hard to cover all of our questions during a two-hour tutorial.
- Following up from my previous point, it would be extremely helpful if there were weekly office hours from the beginning of the semester (for the lecturer and at least some of the tutors). It is great that our lecturer is going to introduce office hours after tutorials are over, but it would be even better if they started from earlier on.
- I would recommend reducing the weight of the exam. The fact that the exam counts for 90% of our grade puts a lot of pressure on our performance in just one exam which is not reflective of our effort during the entire semester. It would be much better if we had for example an assignment during the semester.

- 1) Something that could have been more useful would be more explanation in the notes. Sometimes theorems were just dropped there without an interpretation or formal (non-mathematical explanation) which would have been appreciated.
- 2) We have received nearly no feedback in this course despite handing in several proofs each week. I understand that grading is time consuming but I am now going into an exam with no idea of where I stand with my proofs skills.

- Although I appreciated how tutorial questions kept on referring to previous topics (because it helped me continue practicing a topic and not forget it completely) I found myself confused a bit with the 'jumping around' from one topic to the other. Perhaps in the future when tutorial questions are assigned it can be specified which ones are from which topic?

Perhaps we can be given more practice questions in the tutorials from the economics chapters? Whilst revising, I realised that there were not as many questions assigned so I have been referring to the past exams.

Lastly, there was a Q&A session at the end of the course but I was not made aware of this (I did not receive an email and it was not mentioned in the tutorials). Perhaps next year an email can be sent out with the joining information?

- Although tutorials were helpful, the online environment was not ideal (e.g. stuck whiteboard). Sometimes I had difficulties to understand solutions (e.g. few steps were skipped), but I assume this is a part of the learning process.
- Even if we can ask for feedback during the tutorial, I still wish assignments were corrected after submission. This is because asking a tutor for feedback during the tutorial implies that we know which exercises need feedbacks, which is not always the case.
- I didn't appreciate looking at last years lectures for some parts of the course. I understand that work is needed to produce lectures but then again we completely lose touch with the course and it feels as though I am just watching youtube videos. Personally I was very excited for this course, but I didn't enjoy it in the end. That is my honest opinion. One last thing, I am worried about the ambiguity of marking. As there are no marks specified in each question and or steps, I feel that the marker can provide any mark they desire without any objective judgement which might lead to unfavorable/unfair marking. At least exams are supposed to be anonymous and I hope this is the case. My objective is just to do better than my peers rather than do well on my own because my paper is going to be ranked against others. Again this is my opinion without knowing the exacts of how things work and I really hope I am wrong about this, but since I am asked to provide my opinion, here it is.
- I spend most of my time confused, but I also think that once I do more questions it should be fine. It would also be nice to get some feedback for the homework, because I don't know how to write proofs and I wasn't too sure if I was on the right track but it takes too long to write out the proofs in tutorials.
- I think that the online tutorials could have been improved. I found that when I began attending the in-person tutorials I was understanding the material much more and getting more from the sessions. One way you could have online tutorials be slightly better would be if the leaders had ipads so could write things much more easily. Also the software being used for the online whiteboard was frustratingly slow and would often crash.
- I think this is mainly the case because everything moved online due to Corona, but I think that individual feedback on homework is essential. At the moment, we have to submit homework but I feel like no one even looks at it, so no one checks your reasoning. This caused me to make the same mistakes repeatedly and to have an incorrect understanding repeatedly without even realising. It makes it harder as then a lot of catching up to do. Also before the course starts in September, it must be made clear that there will be an exam in May for everyone, as I thought this was an optional choice.
- I would have lectures be live and recorded because it is much more engaging to be able to watch a lecture live and ask questions in the moment. These lectures could be recorded for others instead of having prerecorded lectures.
- More coursework
- More feedback from your own homework
- None, absolutely none.
- Personally, I found that having a large portion of the notes to be not examinable or sometimes to be not relevant was a bit confusing at first. I understand why it's done this however it may be worth having an abridged notes for exam time revision.
- Possibly rethink how it would be best to get students to work in groups.
- While discussion and group work in tutorials is great, it would have been really helpful to have more "lecture style" sessions at the beginning of the semester to give people who are new to Maths more guidance and intuition when it comes to writing proofs. It might also have been a good idea to mix groups up a bit in terms of abilities. Being in a beginner group myself, I often found that we got stuck on definitional matters or a part of the proof that proved irrelevant in the end, where having a peer with more mathematical understanding would have been really helpful. It took a while to find a tutorial group - maybe this needs to be formalised in some way.
- make asking questions anonymous on piazza for everyone so I'd feel more comfortable asking (possibly very stupid) questions :)

## 4. Advanced Mathematical Economics -

4.1) Reflecting on your experience of hybrid teaching and learning on this course, what has worked well for you?

- As mentioned above, the dedication the tutors showed made my online tutorial experience much better. Although I wish I could have had some contact with Andrew himself I recognise this isn't always applicable.  
I liked that I was able to pause the recordings to take detailed notes which I could not take during a live lecture.
- Everything! No complaints.
- Huge flexibility.
- I could not fully engage with teaching this semester due to a variety of factors, but the online provisions made were generally well-executed.
- I did enjoy the online lectures. I liked that they were concise and well explained. The picture quality of the videos was sometimes quite poor.  
I think that the online tutorial format was just not working though. I felt that it was quite uncomfortable, that it was hard to ask questions and difficult to understand answers. I thought the room system was quite awkward, I think I would have preferred some element of assigned rooms, and made it mandatory to have video and audio on - although I understand the difficulties with this. I got very little out of the online tutorials I went to.
- I found the online tutorials extremely helpful. it was good to have the option of the in-person tutorial as well.
- I like that I can access the lectures at any time.
- Online lectures have been amazing. I like that they were recorded as shorter videos as they feel more accessible and I also enjoy that I can watch them whenever suits me best in the week.
- Online lectures, and the whiteboard function on the online tutorials is very helpful
- Personally I liked being able to watch lectures in my own time, it helped me to better plan my days.
- The course was well organized on learn and on Andrew's website. (I would prefer if it was full on learn as majority of the courses are) Watch lectures at your own speed, time. Replay things you don't understand.
- The in person tutorials were definitely helpful. I think it's often not understood by course organisers that doing Maths can be daunting, and even more so with the pressure of doing it online. I often felt discouraged to participate as I got confused and then got too scared to answer. The in person tutorials helped with this as it guaranteed attention from the tutor, whilst in online tutorials you had to reach out to them.
- The in-person tutorials were invaluable for this course, especially since it is difficult to do maths over Teams or Zoom. Being able to interact and get feedback in real time is very helpful.
- The tutorial sessions worked quite well and it was helpful to get the tutors to come to your 'room' and answer the specific questions we have rather than listen to them answer it.
- Tutorials worked really well for me, as did watching the pre-recorded lectures. In general, this course is well-designed to be taught online.
- Yes



4.2) Is there anything else you'd like to tell us about your experience of hybrid teaching and learning on this course that would help us improve our approach?

- Allocate people to groups (still based on level) and allocate a tutor to a specific tutor, this would really help.
- As I have been studying from home this semester I feel many times disconnected from Edinburgh and my courses. Perhaps more synchronous components can help bring us together even though we are apart?  
  
Also, top hat didn't always work in the tutorials for some reason. I attended all the tutorials but there were many that I was either not able to log in the tutorial code or there was no tutorial code made available. If the tutorials will be run like this next year perhaps the tutors could be made responsible for TopHat since they are the ones using the software to run the tutorial? (That way they can problem solve directly rather than having to liaise with Andrew)
- Dont include past years lectures.
- I also wish there was some way of having more of a class discussion session right after the online lectures. I thought that it would be helpful to hear other people's questions to test my own understanding and see if I am missing something.
- I did not like the fact that for a few weeks we watched videos from previous years' lectures instead of having renewed ones.
- It's so much work trying to write out proofs on whiteboard and I know this isn't something the university can change, but it would be nice to have an alternative.
- Lectures should be live and recorded rather than prerecorded so that we can ask questions in real time. I think it also would have been helpful to have more in-person tutorials for this course (like a morning and evening one) so that more people could have the chance to get feedback in person.
- More tutors in the in person tutorial would have been appreciated but I understand that is complicated.
- N/A
- No
- Originally the video lectures were of very low video quality and the audio was also unclear however this was cleaned up during the course.
- some form of written personalised feedback from a tutor during the semester of how you can improve

## 11. Thank you -

11.1)

Thank you very much for taking the time to complete this questionnaire. Your response and comments will be fully considered.

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Please provide any additional comments you may have about the course, the teaching on the course or the resources that support it in the box below.

- All in all Andrew is a very good lecturer and the course material essential and interesting. But the course learning objectives and assessment methodology needs to be revisited in my opinion. One idea would be to add 3-4 assessments during the semester (i.e. 5% - each) Diversify the assessment.
- I also appreciate that Dr. Clausen has offered to write a recommendation letter. It is very important for many students and sometimes hard to get to know a lecturer so well, that he/she can write up this document. Again, big thanks for this.
- I was really stressed about taking this course because maths has always been my weakest subject, but I feel that the tutors made it so that I was comfortable to make mistakes and ask as many questions as I liked. Even though I may not score the best, I am happy that I took this course, challenged myself and learned a lot in the process. A massive thanks for all the support!
- Overall I loved the course content and was very grateful that such a course was offered at Edinburgh.

One thing is that I thought there could be more examples and lecture materials on model formulation, and using the economics content. I felt a bit lost when doing the economics questions because I did not feel that the lectures and lecture notes went into as much detail as the questions required. Could offer more guidance about how to build models.