

MATH35001 2016-17: Feedback on feedback ¹

I'm supposed to give you feedback on your UEQ Responses because our management believes that this makes you happy. Having looked through what you said, you seem to be pretty happy already (I've attached the report so you can check!), and I am too.

Nevertheless, there were some suggestions for improvement:

- Not sure typing up the solutions (lots of work!) will make a huge amount of difference. You're supposed to use these only for checking your own attempts anyway. So, I can't say this is very high up my list of priorities.
- A few people wanted more examples. Really? If anything, the questions (especially in the latter part of the course) are rather long already. As I said in the lecture, it's actually very difficult to come up with additional questions that are both interesting and do-able (analytically, with a finite amount of tedious algebra). Note that you benefit from this in the exams!
- Hand-writing & slowing down. Hmmmm; I'll try (and probably fail) again. Not writing down everything I say (which was indeed pointed out in week 3) is more of a problem. This usually happens when I go off on a tangent (which I like to do!); in that case I do obviously want you to know about this (otherwise I wouldn't rabbit on about it) but it's not really "on the script", and – more importantly for you – it's not examinable. However, I appreciate that it's difficult for you to assess this in the lecture and may therefore create panic. I will probably create and announce a new rule that "if it's not written down (by me), you don't need to know it" (though it'll make you a better person if you do!).
- Sort of related to this is the request for "More exam-focused teaching". This is **NOT** happening. Ever. As I said, my job is to teach you fluids, not to show you how to pass exams. Regarding the claim that you "still have no idea what could be asked of [you] in the exam": The course has been running (in pretty much the same form) for donkey's years and there are plenty of past exam papers.
- "Bribery was sub par, Andrew gave us chocolate AND a revision class." Andrew's selling out; I'm not.
- "If Prof Heil could number his sections consistently that would make me very happy." Ahhh! This seems easy to achieve and I will give it a go next time.

¹Any feedback on the feedback on the feedback to: *M.Heil@maths.manchester.ac.uk*

University of Manchester
2016-17 Semester 1 Mathematics (UG & PG)

Course: I3034-MATH-35001-1161-1SE-009278: MATH35001 Viscous Fluid Flow 2016-17 1st Semester

Instructor: Matthias Heil *

1 - Overall, I would rate this unit as being excellent									
Response Option		Weight	Frequency	Percent	Percent Responses			Means	
Agree		(5)	55	76.39%				4.71	4.19
Mostly Agree		(4)	13	18.06%					
Neither Agree Nor Disagree		(3)	4	5.56%					
Mostly Disagree		(2)	0	0%					
Disagree		(1)	0	0%					
					0	25	50	75	100
Return Rate	Mean	STD	Median	School BM Data	Mean	STD	Median	Instructor	School BM Data
72/92 (78.26%)	4.71	0.57	5.00	3,496	4.19	1.03	4.00		

2 - The feedback that I received on my work was helpful									
Response Option		Weight	Frequency	Percent	Percent Responses			Means	
Agree		(5)	34	47.22%				4.08	4.06
Mostly Agree		(4)	16	22.22%					
Neither Agree Nor Disagree		(3)	17	23.61%					
Mostly Disagree		(2)	4	5.56%					
Disagree		(1)	1	1.39%					
					0	25	50	75	100
Return Rate	Mean	STD	Median	School BM Data	Mean	STD	Median	Instructor	School BM Data
72/92 (78.26%)	4.08	1.03	4.00	3,496	4.06	1.11	4.00		

3 - This unit was well organised									
Response Option		Weight	Frequency	Percent	Percent Responses			Means	
Agree		(5)	52	72.22%				4.68	4.30
Mostly Agree		(4)	17	23.61%					
Neither Agree Nor Disagree		(3)	3	4.17%					
Mostly Disagree		(2)	0	0%					
Disagree		(1)	0	0%					
					0	25	50	75	100
Return Rate	Mean	STD	Median	School BM Data	Mean	STD	Median	Instructor	School BM Data
72/92 (78.26%)	4.68	0.55	5.00	3,496	4.30	1.02	5.00		

4 - The course materials were helpful									
Response Option		Weight	Frequency	Percent	Percent Responses			Means	
Agree		(5)	48	66.67%				4.54	4.34
Mostly Agree		(4)	18	25%					
Neither Agree Nor Disagree		(3)	4	5.56%					
Mostly Disagree		(2)	1	1.39%					
Disagree		(1)	1	1.39%					
					0	25	50	75	100
Return Rate	Mean	STD	Median	School BM Data	Mean	STD	Median	Instructor	School BM Data
72/92 (78.26%)	4.54	0.79	5.00	3,496	4.34	0.99	5.00		

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5 - The support classes were helpful													
Response Option		Weight	Frequency	Percent	Percent Responses			Means					
Agree		(5)	51	70.83%				4.56		4.15			
Mostly Agree		(4)	14	19.44%									
Neither Agree Nor Disagree		(3)	5	6.94%									
Mostly Disagree		(2)	0	0%									
Disagree		(1)	2	2.78%									
					0	25	50	75	100	Instructor	School BM Data		
Return Rate	Mean	STD	Median	School BM Data	Mean	STD	Median						
72/92 (78.26%)	4.56	0.85	5.00	3,496	4.15	1.07	5.00						

6 - The eLearning resources provided in this unit were helpful													
Response Option		Weight	Frequency	Percent	Percent Responses			Means					
Agree		(5)	36	50%				4.26		4.17			
Mostly Agree		(4)	22	30.56%									
Neither Agree nor Disagree		(3)	12	16.67%									
Mostly Disagree		(2)	1	1.39%									
Disagree		(1)	1	1.39%									
					0	25	50	75	100	Instructor	School BM Data		
Return Rate	Mean	STD	Median	School BM Data	Mean	STD	Median						
72/92 (78.26%)	4.26	0.89	4.50	3,496	4.17	1.12	5.00						

7 - Prof/Dr. Matthias Heil's teaching was excellent													
Response Option		Weight	Frequency	Percent	Percent Responses			Means					
Agree		(5)	64	88.89%				4.82		4.23			
Mostly Agree		(4)	5	6.94%									
Neither Agree nor Disagree		(3)	2	2.78%									
Mostly Disagree		(2)	0	0%									
Disagree		(1)	1	1.39%									
I have not been taught by this lecturer		(0)	0	0%									
					0	25	50	75	100	Instructor	School BM Data		
Return Rate	Mean	STD	Median	School BM Data	Mean	STD	Median						
72/92 (78.26%)	4.82	0.61	5.00	4,218	4.23	1.09	5.00						

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8 - What aspect of Prof. /Dr. Matthias Heil's approach to teaching best helped your learning?

- Very straight forward approach to teaching and very, very good at explaining concepts, whilst not being dull.
- Well thought out, reasoned approach with a good mixture of derivations and assumptions
- Matthias is amazing at every aspect!
- Good pace, funny and interactive.
- Very enthusiastic, well organised and engaging
- Easy to follow and always put up notes online after the lecture which was useful in case I missed something in the lecture.
- His enthusiasm and detailed explanation are great and make his lectures enjoyable.
- Lots of physical examples. Explained the physics very well.
- Very enthusiastic and I like his dry humour. Lectures are interesting and engaging.
- Tends to give a lot of explanation to the maths, not that I understand all of it
- His enthusiasm for viscous fluids is infectious, he really inspired me to learn more about the course.
- Everything is just perfect, He is the best lecturer so far since first year through his course in differential equations. He interact with students all the times and you will seldom feel bored in his class. He like to make some jokes at the right time and this really brings up the atmosphere in the class. He even brought his colleague in physics department just to illustrate the physical experiment to us live in the class during tutorials. Perfect lecturer and I am just honoured to be able to take the module taught by him. thank Professors :)
- Excellent approach to teaching, lectures are clear and well paced.
- Engaging and entertaining, fantastic teaching in general
- Funny, detailed in explanation, just a great guy
- Everything. He is Heil.
- hHe use of humour made it easy not to fall asleep.
- Entertaining lectures. Great explanations.
- brilliant lecturer
- Massive fan of his teaching style. Also very appreciative of the standard of the online notes and learning resources.
- Clearly passionate about his subject, does good demonstrations
- His enthusiasm and ability to make me want to come in to lectures
- cl
- I like the content in the course and therefore found it interesting.
- Enthusiasm
- everything
- his enthusiasm towards this module was inspiring at parts. His ability to convey difficult mathematical concepts across in a simple way is next to none and truly makes his lectures worth visiting.
- The explanations in lectures were very clear and well laid out. Enthusiastic and good at teaching concepts.
- Easily approachable; I feel pretty confident asking questions.
- Very funny and engaging , always made the material interesting.
- One of the best lecturers in the school of mathematics - his passion shines through whilst he lectures. He has an excellent sense of humour and keep the lectures interesting with varied examples and visual aids. I especially liked that he gave us handouts of the NS equations to work with and we even did a mini experiment in lectures! When ever I have had to miss a lecture I have been very disappointed with myself because I love his lectures that much! Brilliant lecturer!
- I found the balance of physical grounding to mathematical abstraction to be spot on (much better in fact than quite a few Physics modules).
- He was very enthusiastic and knowledgable about his course, he has some great analogies
- Ending lectures in appropriate places and reminding us where we left off, a surprisingly uncommon trait amongst lecturers, but a very helpful one.
- Very well structured course with helpful examples included in lectures. Notes made during lectures will be very helpful when revising for the exam.
- The fact that he stops to give concrete examples, describe the meaning of the equations and make analogies is extremely helpful.
- Very thorough explaining things and had a good sense of humour
- Funny, good pace at which he writes and he always explains what he means where other lecturers may not.
- Well teaching and interesting character.
- Great teaching. Rather entertaining.
- Fun, easy lecturing style, makes every question seem reasonable to ask. Great at explaining things
- Good explanation
- Thorough lecturing style.
- Explained things well
- Provide physics intuition beside the mathematics.
- He is very engaging and interesting to listen to.
- Clear lectures.

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9 - Please provide details of what you valued about this unit

- Interesting topic, plenty of examples.
- The different situations, which can be related to real world scenarios, in which the Navier Stokes eqns are easy to solve e.g. situations where parallel flow is assumed.
- Good layout, easy to learn/see where you are in the course
- Amazing course
- Very interesting, also good seeing crossovers from other subjects
- Very good teacher and well organised unit overall
- Learnt lots of fluid mechanics
- Really like the topic. I like the mystery of the existence and uniqueness of solutions to the Navier Stokes equations. Also I loved the experiment demonstrated in one of the examples classes.
- Good structure
- The course is about applied fluid dynamics with viscous fluid. I generally enjoy applied maths since it involves real life situations and the phenomena that are happening around us for example the weather. Although there are a lot of tedious equations to be solved and computed, but everything will be evolving around only a few equations and those equations are just so important that it is worth the time to understand and be useful in the future.
- Heil is teaching it and also it's about spreading honey on toast and that's important.
- I actually enjoyed it.
- Mainly online notes and learning resources.
- -
- Matthias Heil <3
- the amount of honey references
- - the difficulty. it was bearable but still challenging enough to stimulate my mind - lecture and example class structure. work sheets were relevant and difficult - lecturer was excellent
- Example classes were good and lecturer was very good
- I appreciate the approach he takes with examples sheets; giving us time to have a go at the question ourselves before going through it on the board. Gives people who haven't got a clue where to start still a reason to go to the tutorials and find them useful
- interesting content, one of my favourite modules :)
- Extremely interesting and varied. I like his pace and how the course progresses smoothly from theory to applications.
- I found many of Matthias' explanations of different ways of approaching similar mathematical problems very interesting.
- It's fairly interesting and well taught
- Constant reminders of the physics we were modeling made it much easier to understand the maths.
- well explained, podcasts were also useful to go back over lectures
- Interesting material.
- More physics stuffs in this course.
- Great maths.
- fluids.
- He wrote everything on the visualiser
- Amazing! It is probably one of my favourite courses I have studied at uni. The materials are easy to follow and enjoyable.
- Good teaching, introduced me to the interesting area of the Navier-Stokes equations.

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10 - Please provide details of what you think could be improved on this unit

- Maybe the solutions to example sheets could be typed up
- Would like a few more examples/extra questions as the material is little challenging and more practice would be good.
- The lecture notes could be improved in presentation and are much less useful than the lectures themselves. This is how things ought to be of course, but I still feel the lecture notes could have more text on them, to aid those re-reading them.
- -
- Latexed notes would be good.
- Please slow down a little. Prof. Heil often gets carried away and important details are often rushed unnecessarily. Other than that, very good module.
- maybe he could have detailed written up notes on his website
- nothing, just perfect!
- It may be nice to see a few more computer graphics of flows but by no means essential.
- not much
- More spreading honey on toast is required.
- more online course notes in book form - would be very helpful for revision
- Not Professor Heil's fault, but the online recordings didn't function twice if I remember correctly. But the additional write ups and online notes he posted rectified this problem very swiftly.
- Better typed up notes perhaps
- None, its perfect.
- some example sheet questions of a more similar difficulty to that of the examples in lectures to get started
- Matthias spends a lot of time talking but doesn't write down a lot of what he says. This was pointed out on the week 3 feedback however he rather unhelpful pointed out that you should attend lectures. The point is that I do attend lectures however it is difficult to write everything down when it is just being spoken due to the speed. This is evident in that the amount of notes i made during lectures for this course was less than all other modules.
- More exam-focused teaching, right now in week 11 i still have no idea what could be asked of us in the exam
- nothing
- N/A
- In the lectures the notes written down could be clearer. Sometimes the diagrams were messy and are hard to decipher if looking back at the notes.
- Small criticism.... dare I say it.... handwriting, just kidding its not that bad!!
- nothing
- More emphasis on particular structures within the N-S equations and methods of solving them with methods from non-linear dynamics would have been good.
- I would rather have some coursework to do rather than have a 100% exam, but there are obviously reasons for this
- Bribery was sub par, Andrew gave us chocolate AND a revision class.
- Better examples classes where the lecturer goes through the whole (or as much as possible) of the example sheet set that week.
- Hand-writing maybe. Overall great.
- Hoped we'd have learned it earlier in the degree...
- His handwriting
- -
- If Prof Heil could number his sections consistently that would make me very happy.
- Longer tutorial sheets.