PX120 - Module Feedback

Thank you for submitting your feedback on this module - the results will be collated and the information viewed by the module leader and the Education Committee and can help to improve the experience of students taking this module in future.

1   I watched or read through the notes of (...?...) of the online lecture material

Response	Average	Total
>80%	72%	31
50-80%	9%	4
<50%	19%	8
Total responses to question	98%	43/44

2   I attended (...?...) of the Live events for this module

Response	Average	Total
All	20%	9
Most	23%	10
Some	39%	17
None	18%	8
Total responses to question	100%	44/44

3   I watched the recording of (...?...) of the Live events for this module

Response	Average	Total
All	16%	7
Most	9%	4
Some	34%	15
None	41%	18
Total responses to question	100%	44/44

4   The quantity of material was...

Response	Average	Total
About right	43%	18
Too great	38%	16

Response	Average	Total
Too little	19%	8
Total responses to question	95%	42/44

5 By the end of the module its purpose and direction were...

Response	Average	Total
Clear	42%	18
Hazy	28%	12
Unclear	30%	13
Total responses to question	98%	43/44

6 Explanation of new terms and concepts was...

Response	Average	Total
Good	16%	7
Adequate	41%	18
Poor	43%	19
Total responses to question	100%	44/44

7 I have a (...?...) set of notes

Response	Average	Total
Good	32%	13
Adequate	39%	16
Poor	29%	12
Total responses to question	93%	41/44

8 I felt able to ask the module lecturer questions and get useful answers

Response	Average	Total
Yes	42%	16
No	37%	14
Didn't need to ask anything	21%	8
Total responses to question	86%	38/44

9   Promptness of feedback to queries about the module content was...

Response	Average	Total
Good	34%	13
Adequate	26%	10
Poor	3%	1
I didn't have any queries	37%	14
Total responses to question	86%	38/44

10   Would you like a course taking this subject further ?

Response	Average	Total
Yes	38%	16
Neutral	38%	16
No	24%	10
Total responses to question	95%	42/44

11   Did you use any of the recommended/suggested textbooks?

Response	Average	Total
Yes - purchased	18%	7
Yes - consulted	43%	17
No	40%	16
Total responses to question	91%	40/44

12   I found the textbook(s) used to be...

Response	Average	Total
Very Helpful	24%	10
Helpful	37%	15
Unhelpful	5%	2
I did not use a textbook	34%	14
Total responses to question	93%	41/44

13   I found the provided interactive tools to be...

Response	Average	Total

Response	Average		Total
Useful		26%	10
Entertaining		23%	9
Not used		51%	20
Total responses to question		89%	39/44

14 I attempted (...?...) of the non-assessed questions on the problem sheets

Response	Average		Total
>80%		5%	2
50-80%		19%	8
<50%		76%	32
Total responses to question		95%	42/44

I understood the following main topics

15 Coulomb force and electric fields

Response	Average		Total
First time through online lectures or notes		63%	27
After more work		30%	13
Poorly		7%	3
Total responses to question		98%	43/44

16 Gauss's Law

Response	Average		Total
First time through online lectures or notes		33%	14
After more work		56%	24
Poorly		12%	5
Total responses to question		98%	43/44

17 Electrostatic Potential

Response	Average		Total
First time through online lectures or notes		30%	13
After more work		53%	23

Response	Average	Total
Poorly	16%	7
Total responses to question	98%	43/44

18 Capacitors

Response	Average	Total
First time through online lectures or notes	57%	24
After more work	38%	16
Poorly	5%	2
Total responses to question	95%	42/44

19 Current, resistors and DC circuits

Response	Average	Total
First time through online lectures or notes	67%	28
After more work	26%	11
Poorly	7%	3
Total responses to question	95%	42/44

20 Magnetic field, Lorentz force, Biot-Savart Law

Response	Average	Total
First time through online lectures or notes	13%	5
After more work	63%	25
Poorly	25%	10
Total responses to question	91%	40/44

21 Ampere's Law

Response	Average	Total
First time through online lectures or notes	26%	11
After more work	52%	22
Poorly	21%	9
Total responses to question	95%	42/44

22 Electric and magnetic dipoles

Response	Average	Total

Response	Average	Total
First time through online lectures or notes	14%	6
After more work	48%	20
Poorly	38%	16
Total responses to question	95%	42/44

23 Faraday's Law

Response	Average	Total
First time through online lectures or notes	33%	14
After more work	50%	21
Poorly	17%	7
Total responses to question	95%	42/44

24 Solenoid and Inductors

Response	Average	Total
First time through online lectures or notes	14%	6
After more work	71%	30
Poorly	14%	6
Total responses to question	95%	42/44

25 LRC circuits

Response	Average	Total
First time through online lectures or notes	29%	12
After more work	49%	20
Poorly	22%	9
Total responses to question	93%	41/44

26 The best features of this module were:

Respondent	Response
	The diagrams provided in the lecture notes.
	The digital notes are sick
	clear diagrams and examples
	I enjoyed the content

Respondent	Response
	The content was interesting.
	On the whole the lecture notes were pretty good.
	Learning about Ampere's and Gauss law. Learning about symmetry between electric and magnetic fields. Learning about how what is learned in the module can be applied to rail-guns and the sun. The detailed concise set of notes that starts from first principles to derive well known results. Well annotated figures. The interactive links. The Live sessions. The context of the problems in the problem sheets.
	I like the tools that were linked. Some of them were very nice and quite cool. Also the lecturer replied to questions fast.
	Although it was a lot at once, the week 1 videos on cylindrical and spherical coordinates, line integrals and surface integrals were well explained.
	The live sessions were useful to understand conceptual ideas better. There was a good amount of non-assessed material in the notes which were very interesting.
	None
	N/A
	We were given a good set of notes.
	diagrams in the notes
Total responses to question	14/44

27   Any particular aspects/items needing improvement (and suggestions how):

Respondent	Response
	Potentially adding descriptions/captions for some of the more complicated diagrams.
	This module was horrible to learn online. Couldn't easily read the writing in the pre-recorded lectures. Would much prefer in-person teaching for this module.
	Lectures that go through the topics thoroughly
	Erwin is a terrible lecturer. He very poorly explains concepts, randomly picking things out of thin air and not discussing how we got to each line of working. His thought process was incoherent and his perception of self importance is laughable - not even bothering to reply to emails that don't start with Dear Dr Verwichte... I could understand this if his responses were actually useful but it comes off as egotistic and annoying. I learnt loads more from the textbook than his lecture notes which were adequate at best. He could improve by actually releasing a decent number of videos each week similar to PX148 and using the textbook to explain concepts better. Also the amount of demonstrations that supposedly bring this module to life is awful. I feel like I've been assaulted with equations and concepts with Erwin not saying where they came from or what motivates them and as such have pretty much had to teach myself. I'm glad we didn't have in person lectures for this module, I feel like it would've been a waste of time I could've spent with a textbook that teaches the module far better.
	The module felt much more like a "teach yourself" compared to other modules. Other lecturers made videos for every part of the module, so I don't understand why this is not possible here.
	Video content was almost non existent and instead we were just expected to read lecture notes that had quite a few mistakes and were sometimes confusing. Problem sheets were also very poorly worded at times and meant you had to sort of guess what the question was actually asking.

While I appreciate the blended approach, a full set of course videos that go completely over the course would have been better for my understanding as it would have forced me to consider the information more heavily rather then scanning over it in the notes. For the videos that were released, the camera quality was poor, with certain information hard to make out.A better visualiser or camera would have allowed for more clarity. Integrals, derivatives and vectors are used heavily in this course, this can lead to proofs which can be hard to follow in the notes due to having to keep track of so many things both from that week's and the week before that week's material. This can make it hard to recreate when doing problems or trying to prove it for yourself. I find myself able to complete section A questions by using results in the notes; while section B and C questions feel inaccessible because while i understand the mechanics, I struggle with the foundational thinking that is required.. A video on critical thinking, or how to think from first principles about a problem might be helpful in tackling problems where the assumptions to a result obtained in the notes are no longer valid and the student has to derive results from first principles. Polar and cylindrical coordinates, while making the derivations easier, are quite difficult to follow and use due to their recent introduction.For example the idea that R is a function of theta can be quite difficult to follow since in contrast cartesian basis vectors are fixed. Giving students more time to spend on transitioning between the different coordinates systems and using them would be helpful.On the section B questions, breaking the problem down into steps i,ii,iii) would be helpful in making them more accessible.

The video quality was poor most of the time which made the lectures unwatchable on my small 13-14'' laptop, which made me skip most of them. Not only that, EM is the hardest module I've taken this year, I feel like it should have had more videos (at a higher quality) than a module like Classical Mechanics which was A-level extension basically, not less videos. This is not meant as a knock on Professor Erwin, for some of my Maths modules I have 3 lecturers, perhaps Professor Erwin should have received more support on how prepare for online teaching.

trying to learn such complicated equations without verbal explanation was the main problem. The recorded videos were such low resolution that they were too difficult to make sense of for the most part.

Notes need to be more organised, do not throw us with a bunch of integrals

Unless I am mistaken, this module would normally have 3x50 minute lectures per week to deliver the content. This year, I calculated that we had an average of 58 minutes of pre-recorded lectures per week. This does not seem fair to me. I realise we were meant to study the lecture notes and the textbook alongside the videos, but the course does not follow the textbook that closely. Moreover, whilst clear and concise, the lecture notes are not detailed enough that you can teach yourself the module from them. I don't understand why we had so much less video material for this module than for our core physics modules in term 1, when we had 2.5-3 hours of videos every week. I found that reading a textbook was a poor substitute for having a lecturer explain the concept verbally. It would've been particularly helpful to have a short overview video at the start of each week, summarising the material that should be studied in that week, and how it fits in with the rest of the course. As it was, we just had a certain number of pages in the lecture notes to read, with no indication of what was particularly important and what was just being briefly introduced so that we are aware of it. For example, I found section 12.1 in the notes very difficult to understand, and there was no pre-recorded video explaining it. I tried looking in the textbook, where it went into much more detail than was in the notes. It turned out the concepts were not mentioned again for the rest of the module. Overall, I felt we were largely left to struggle by ourselves with this module. I don't think this was fair, especially this year when it's more difficult than ever to make friends on the course and help each other with the work. Yes, it made us more independent learners, but it made things much harder for us when we were already busy with our other modules.

It would have been so much better if we had lectures to cover the whole course, not just little bits of it. You said it's because of the blended learning approach but in all other modules we've still had lectures to cover all the material. It's a lot harder to understand the concepts from textbooks and the notes. The notes were quite useful but it would have been better if they were more formally typed up - e.g. full sentences explaining each line of equations, like you would if you were writing them out in a lecture. I know we can ask questions about parts of the course we don't understand, but I've been able to understand all of it - it's just a rather shallow understanding... Also, some of the wording on some of the problem sheets could be quite ambiguous in places. In lectures, it can be helpful to see you draw a diagram from scratch, as opposed to starting with it already drawn, so that we can see more clearly what parts corresponds to what. It would be helpful to be given more of an intuitive sense of what's happening in the lectures, instead of just diving straight into the maths. However, the main problem was the lack of lecture material, leaving us to effectively self-teach most of the module. I counted less than 10 hours of lecture material over the term (plus live sessions), even though I think we're usually meant to have 30 hours... When we started, we were told how attending all of the lectures will improve our understanding and results - so it would have been nice to actually be given all the lectures.

Spread Notes out per week and combine at end, information overload is very apparent.

Maybe Erwin should actually deliver the content to us? This module felt more as a self study module which is extremely unfair. Especially since the notes for the module were abysmal. Littered with mistakes and it didn't explain the concepts clearly. If we fail this module then we know why!

Respondent	Response
	I was very unhappy that the content of the module was taught mainly through lecture notes instead of videos like last term
	Make the notes make sense, proof read problem sheets to make them make sense also
	I would have preferred to be taught with a full series of lectures. I did not find that learning pretty much solely from notes was particularly engaging. I found I was having to put a lot more effort in my own time into understanding this module than in others this year due to the lack of a full lecture series.
	more pre recorded lectures explaining the notes
Total responses to question	18/44

28   Any other comments:

Respondent	Response
	Good content, I found it interesting but Erwin did absolutely nothing to make it come to life or give the content meaning hence providing zero motivation to continue studying this module with it all coming from me.
	Where i understand the course the most is in the life-sessions, the lecturer provides not only a motivation but a narrative of the proof. In my opinion people prefer videos for this reason, because a lot of information about the motivation of each step, and direction the proof is going in can be lost within the notes. The notes do an excellent job of explaining what and how, that's how they are concise. But the motivation, the why of the steps in a proof and concept need to be explained somewhere, and videos fill that role in my opinion. In some parts of the course I find myself understanding the results and the concept, but not the journey, of how we got there. This is an enjoyable course, taught by someone who is extremely knowledgable on the course.
	Definitely one of the hardest modules of the year, I definitely struggled quite a lot with studying this module but I'm sure it would have been better face 2 face. The notes are quite nice and the module page is nicely organized.
	The video quality improved after a few weeks, when the lectures began to be filmed in landscape. Overall, I've enjoyed the module. Thank you.
	Having the majority of the module being taught from the lecture notes - which are very much just notes and not an explanation - was not at all helpful. Especially for someone with dyslexia, for whom reading is more difficult. I had to put a lot of extra effort into finding YouTube videos on many of the topics and the module did not provide enough of an explanation.
	Worst module by far.
	The lecturer himself was good at times in the live sessions etc. However the lecture notes I found very poor to work from and very unmotivating, EM is a module I was very looking forward to,however the way the majority of this was taught I do not want to take it any further anymore, although some of the concept are really interesting. There were very few examples, in the last chapter I just did (the ACpower part) every question on it in the mastering physics I had no idea what to do even though it was so simple. The lecture notes miss key things out and clear examples.
	No
	some of the assessed questions didn't make much sense and were worded poorly
Total responses to question	9/44