

MA40188 ALGEBRAIC CURVES 2015/16 SEMESTER 1
INFORMAL QUESTIONNAIRE FEEDBACK
(HALLOWEEN EDITION)

ZIYU ZHANG

Thank you all for filling out the questionnaire! Your suggestions and comments will be very helpful to make the rest of the course better. Further opinions are always welcome at any time!

THINGS I WILL BE HAPPY TO CHANGE

Number definitions, theorems, etc in lectures. I will be happy to do so. But just let you know that everything is numbered properly in the lecture notes that you can find online. The numbers for the results referenced in exercise sheets can always be found in lecture notes. Reminder: during lectures I do not always follow the organisation in notes, which means that you will see numbers jumping back and forth.

Speak more slowly and write more clearly, especially towards the end of a lecture. Thanks. This is important. I will remember to write larger and make my handwriting more readable. I have also realised that I sometimes rush to finish a lecture, which is probably not a good idea. I will think how I can avoid that.

If you find it a little difficult to write everything down in lectures, the lecture notes should be helpful in filling out gaps in your own notes. If you find the letter \mathbb{P} for the projective space not very well written in lectures. I promise that I will improve it.

More examples / more proofs. I have always been trying to include more examples in lectures. However, this depends on the difficulty and the importance of the topic. But in general, we will see more examples in next few weeks than in the previous weeks.

For those of you who are more proof-minded, there are indeed quite a few big theorems included in this course, in fact, almost every week! Such as Hilbert basis theorem, Nullstellensatz, and the correspondence between polynomial maps and homomorphisms of coordinate rings (which is a down-to-earth restatement of a key result in algebraic geometry and category theory). We will see other big theorems in following weeks. However, instead of discussing long proofs, sometimes I prefer to spend more time on examples to illustrate the applications of theorems, because for most of you who will not do research in algebraic geometry in the future, it is more important to know what a theorem is good for, than how the theorem is proved. However,

if you are interested in knowing the proofs, it is absolutely a good thing! You can check the reference listed in lecture notes or ask me for more details.

THINGS THAT ARE HARD TO CHANGE

Collect solutions on Monday and hand them back before exercise classes. If you submit your solutions on Monday, they are always marked and handed back at the beginning of the exercise class on Friday. I am also happy to accept solutions handed in on the day of the exercise class. The reason is that the second lecture required for an exercise sheet is given on the previous Friday, which is too close to Monday. I guess some of you might prefer to have more time to think things through, so it might be helpful to have a few more days.

Divide exercise sheets into chapters/sections. I understand that this might provide some convenience, especially when you want to do some exercises immediately after the Monday lecture. However, many of the exercises are comprehensive, so it is difficult to say which section of the chapter they should belong to. I propose the following solution: if you want to know which exercises can be done immediately after the Monday lecture, please come and ask me!

Exercises are too difficult / too easy. More hints / less hints. Based on your mathematical background, you have very different opinions on the exercise sheets. This is a very typical situation in a large class consisting of students in different years and programs. Providing extra hints is my solution to this problem.

For those of you who find exercises too easy: do not read hints before you work on the exercises, as the hints are not designed for you. If you still find the exercises too easy, then I think you have understood the material quite well. The two textbooks I recommended in the beginning of the semester contain many other good questions. If you would like to take some extra challenge, you can probably try to work on some of these questions that appear interesting to you. I will be happy to discuss them with you if you need any help.

For those of you who find exercises too difficult: the hints are supposed to help you get through the difficult steps in exercises. Apart from reading the hints, you also need to think how the question at hand is related to the concepts or theorems discussed in lectures, and how the examples given in lectures could help. If you still find a certain question very difficult, do not hesitate to look for help: discuss with your classmates, or search for relevant information on the Internet, or ask me for more clues. The more you try, the more you will learn.

Provide free snacks / free candy bars / free cakes in exercise classes. If you ask, then the “official” answer to this request is no, as the rule does not allow food to be served in “general teaching area”. But rules could have exceptions, just like the irrelevant ideal (z_0, \dots, z_n) does not correspond to any non-empty projective algebraic set ... (is it a bad metaphor ???)

Happy Halloween!