

Mathematics 0B1 : Week 1 : diary of events

Monday 5th October to Friday 9th October

This is the first week of regular teaching of this course-unit. It is important to carry out all activities mentioned below. There are three lessons in the schedule for this week and there is a folder dedicated to each lesson.

In the list of activities below, those mentioned in red are synchronous activities i.e. they take place at specific times and involve interaction with staff/postgraduates and with other students. Other activities are asynchronous activities ; while students are free to carry out these activities at chosen times, enough spare time should be factored in so that students complete the asynchronous activities in time for the appropriate synchronous activities.

1. Download/print the "Course Materials on Rational Functions and Partial Fractions". You should have this file with you when you watch the videos and be prepared to annotate (or write on) the file as you watch the videos (particularly the examples).
2. Look at the introductory video on "Rational Functions and Partial Fractions".
3. Attend (virtually) the diagnostic followup session at 11 am on Monday 5th October and learn what you need to do as your followup. The link is <https://zoom.us/j/93259710120>
4. Look at the resources in the folder on Lesson 1A
 - a. Watch the video on "Rational Functions"
 - b. Carry out "Exercises 1A" and having done so, compare your answers with the solutions.
5. Look at the resources in the folder on Lesson 1B
 - a. Watch the video on "Partial Fractions for Proper Rational Functions with Quadratic Factorising Denominators"
 - b. Carry out "Exercises 1B" and having done so, compare your answers with the solutions.
 - c. Carry out Interactive Quiz 1B as many times as you like.
6. Look at the resources in the folder on Lesson 1C
 - a. Watch the video on "Partial Fractions for Proper Rational Functions with Other Denominators". This video is slightly longer and comes in two parts
 - b. Carry out "Exercises 1C" and having done so, compare your answers with the solutions.
 - c. Carry out Interactive Quiz 1C as many times as you like.
7. Once you have studied all of the lessons, now try the questions on Examples Sheet 1. Questions 7-11 are similar to the examples in the lectures while 14 and 15 are possibly harder. You can see short answers to most questions and you can also see full solutions to 7-11 in the hours leading up to the tutorial.
8. Other resources are
 - a. The link to the discussion board to ask/answer any questions on Rational Functions and Partial Fractions.
 - b. A link to HELM 3.6 on partial fractions. There are also sections in the various other texts on partial fractions.
9. Take part (electronically) in the tutorial i.e. small group synchronous session (3 pm or 4 pm on Wednesday 7th October). There will be questions on the in-class sheet and also the regular examples sheet to discuss. The links will be circulated nearer the time.
10. Attend (virtually) the review session (11 am on Friday 9th October). You will be able to ask questions, take part in polls & quizzes etc. The link is <https://zoom.us/j/93580682898>

You are expected to devote around 6-7 hours per week to each course unit (although this will vary from student to student). Two hours of this is in the synchronous sessions. It is expected that watching the videos will take between 1 and 1.5 hours. The remaining 3 hours should be spent attempting the various questions (including the examples sheet), taking part in discussions, further reading as well as some time on the diagnostic followup.

Any questions : please contact colin.steele@manchester.ac.uk