

Information for Y1 students (Term 2)

Dear Y1 student,

Welcome back! We hope you had a nice winter holiday.

This document contains information about the modules

MATH0004 Analysis 2¹

MATH0006 Algebra 2²

MATH0009 Newtonian Mechanics ³

MATH0011 Mathematical Methods 2

The information about MATH0002 Economics ⁴ and MATH0007 Algebra for Joint Honours Students⁵ can be found on the Moodle pages of these modules.

Week numbers 1-9 refer to the nine teaching weeks of Term 2, from 18 January until 26 March, excluding Reading week 15- 21 February:

Lectures

All lectures will be pre-recorded and uploaded on Moodle on a weekly basis just like in term 1.

Tutorials

Analysis 2, Algebra 2, Newtonian Mechanics:

Students have one tutorial per week in each module, starting from January 18th. Tutorials take place in groups of 15 (roughly) and the groups are the same for all modules. Each tutorial group is further divided into mini-groups of 2-3 students (which are also the same for all modules). Mini-groups are labelled as A, B, C, D, E. Students within each mini-group work together on some coursework and jointly prepare presentations.

Mathematical Methods 2:

There are no tutorials before Reading Week. The first half of this module consists of a programming in Python component. For further details, please take a look at the Moodle page for the module.

After Reading Week, starting 22 February, there will be weekly tutorials. The tutorial groups will be the same as in the other modules you are taking in term 2, however, students should work and submit all coursework independently in this module. Also, there will be no presentations.

The days of the tutorials are as follows:

¹ This module is not taken by Mathematics and Physics students.

² This module is not taken by Mathematics and Physics students and Mathematics and Statistics students.

³ This module is only taken by Mathematics and Mathematics with Mathematical Physics students.

⁴ This module is only taken by Mathematics with Economics students.

⁵ This module is only taken by Mathematics and Physics students.

- Analysis 2: Tuesday
- Mathematical Methods 2: Wednesday (after 22 February)
- Algebra 2: Thursday
- Newtonian Mechanics: Friday

Following UCL's guidelines, there will be no face to face tutorials before Reading Week. If the situation changes afterwards, further information will be circulated separately.

Students will be contacted by their tutors in each module to let them know the time and Zoom link of the tutorial before tutorials start. Students will also be able to see the time of their tutorials on their UCL timetable.

Tutorials will run until the end of term on 26 March. There will be no tutorials during Reading Week 15-21 February.

Tutors will let students know which mini-group they are in and students should get in touch with their mini-group peers.

Attendance in tutorials is compulsory.

Coursework

Analysis 2, Algebra 2, Newtonian Mechanics:

In each module, students will do coursework, which consists of bi-weekly problem sheets (written coursework) and bi-weekly online quizzes written on the STACK platform. One of the problem sheets will be designated as the mid-term problem sheet.

Students in each mini-group should get in touch with each other and work on the problem sheets (except the mid-term one) together. Each mini-group should hand in a joint homework. Students need to make sure that each of them participates in the writing and contributes at least 25% of the written work over the term. The mid-term problem sheet should be attempted and handed in individually by each student. Each homework should be submitted as a single pdf file according to the guidelines [here](#).

The quizzes should also be attempted individually.

The courseworks and quizzes in Week 1 will not be assessed. The precise coursework pattern is as follows:

- **Analysis 2 and Algebra 2**
Problem sheets: weeks 1, 3, 5 (mid-term problem sheet), 7, 9
Quizzes: weeks 2, 4, 6, 8
- **Newtonian Mechanics**
Problem sheets: weeks 2, 4, 6 (mid-term problem sheet), 8
Quizzes: weeks 1, 3, 5, 7, 9.

Each problem sheet will consist of assessed questions (which are to be handed in), non-assessed questions, and 5 questions (marked A, B, C, D, E) for student presentations (one question per mini-group).

Mathematical Methods 2:

After Reading Week, students will do coursework, which consists of bi-weekly online quizzes written on the STACK platform and bi-weekly problem sheets (written coursework). The problem sheets should be attempted and handed in individually by each student. Each problem sheet should be submitted as a single pdf file. The quizzes should also be completed individually.

The quiz in Week 5 (the first teaching week after Reading Week) will not be assessed.

The precise coursework pattern is as follows:

Quizzes: weeks 5,7,9.

Problem sheets: weeks 6,8.

Bi-weekly module pattern

Analysis 2, Algebra 2, Newtonian Mechanics:

Tutorials will run on a bi-weekly pattern, alternating between a tutorial where the tutor provides general help with the module, and a tutorial spent on student presentations. 'No presentations' tutorials take place on the weeks when written coursework is due, while 'presentations' tutorials take place on the weeks when students do online quizzes.

During a 'presentations' tutorial, each mini-group gives a 5-minute presentation based on the corresponding question in the last week's problem sheet. Each presentation should be given by one student from the mini-group (students in the mini-group should decide between themselves who will be presenting). Each student has to do at least one presentation per term.

Before a 'no presentations' tutorial, each mini-group should post a question to the tutor on a Zoom Channel set up by the tutor (or email it to the tutor).

The bi-weekly pattern is the same for all these three modules, with the only difference that Analysis 2 and Algebra 2 are shifted by a week with respect to Newtonian Mechanics.

Bi-weekly pattern for Analysis 2 and Algebra 2

Week 1, 3, 5, 7, 9

- **Problem sheet** is handed out before the week starts. The assessed questions are due⁶ by Sunday (so that students have one week to work on them). The problem sheet also contains presentation questions A, B, C, D, E for the following week.
- Each mini-group should post a question to the tutor on a Zoom Channel set up by the tutor (or email it to the tutor) before the tutorial.⁷
- **'No presentations' tutorial.**

Week 2, 4, 6, 8

- **'Presentations' tutorial:** Each mini-group gives a 5-minute presentation based on the corresponding question in the last week's problem sheet.
- Students complete an online **quiz**.

⁶ Except week 1: problem sheet 1 is not assessed and is not to be handed in.

⁷ Except week 1.

Bi-weekly pattern for Newtonian Mechanics

Week 1, 3, 5, 7, 9

- **'Presentations' tutorial:**⁸ Each mini-group gives a 5-minute presentation based on the corresponding question in the last week's problem sheet.
- Students complete an online **quiz**.

Week 2, 4, 6, 8

- **Problem sheet** is handed out before the week starts. The assessed questions are due by Sunday (so that students have one week to work on them). The problem sheet also contains presentation questions A, B, C, D, E for the following week.
- Each mini-group should post a question to the tutor on a Zoom Channel set up by the tutor (or email it to the tutor) before the tutorial.
- **'No presentations tutorial'**.

Mathematical Methods 2:

Tutorials start in the week of 22 February (Week 5 of teaching). There are no presentations in these tutorials.

Week 5

- The tutorial is spent on introduction, general guidelines, discussion around the first quiz and answering general questions.

Week 6,7,8,9

- Each mini-group should post a question to the tutor on a Zoom Channel set up by the tutor (or email it to the tutor) before the tutorial.
- The tutorial is spent on the questions sent on the Zoom Channel, current material and hints for the current individual coursework (problem sheets in Weeks 6, 8 and quizzes in Weeks 7,9).

Quizzes

Most of the online quiz questions are written in the STACK system, which allows students to enter formulae as their answers. Students should familiarise themselves with STACK syntax using [STACK: Information for students](#) and, in particular, [answer input](#) webpages.

Although the STACK Team has been working very hard to prepare and debug the quizzes, some bugs are likely to remain. If a student experiences a bug, they should discuss it with their tutor (within the quiz, the student can click on 'Review' and their responses and feedback received will come up).

How to do a presentation

In a face-to-face tutorial, a presentation can usually be done by writing on a whiteboard and explaining the solution of the assigned question.

In an online tutorial, the presenting students may either share handwritten/typed notes as an image file and talk through them, or share their writing live on a tablet.

⁸ Except week 1, when the tutorial will not have presentations.

Students are encouraged to practice their presentations (in particular, the tech aspect) before the tutorials.

Assessment

- Analysis 2, Algebra 2, Newtonian Mechanics: 85% exam + 10% coursework+ 5% mid-term problem sheet
- Mathematical Methods 2: 75% exam +20% programming component+ 5% assessed coursework.

Office hours

The lecturers are available to answer questions during office hours (on Zoom, via the links from modules' Moodle pages). Office hours are not compulsory to attend but they provide a good opportunity to talk to the lecturer and ask questions. The office hours take place on Monday at the following times:

- Mathematical Methods 2: 9-10 am
- Algebra 2/ Algebra for Joint Honours Students: 10-11am
- Newtonian Mechanics/ Economics 1 (Combined Studies): 11am-12pm
- Analysis 2: 12-1pm

Contact

If you have any questions you are welcome to contact the following people:

- Your tutors
- Lecturers:

Analysis 2: Prof. Dmitri Vassiliev

Algebra 2: Dr Mark Roberts

Newtonian Mechanics: Prof Erik Burman

Mathematical Methods 2: Dr Matthew Towers (1st half of the term) and Prof. Helen Wilson (2nd half of the term)

- For Timetabling enquiries and tutorial clashes: Harry Donnelly
- For Personal Tutor Enquiries: Lana Shiel

For any other matters:

- Year 1 Coordinator: Dr Cecilia Busuioc
- Departmental Tutor: Dr Mark Roberts