MATH1054 Mathematics for Engineering and the Environment, 2021/22
Organizational Data

• **Sessions:** Each semester has 12 teaching weeks. The University is closed on the May Bank Holiday (Monday).

For Aero/Ship students, MATH1054 sessions appear on your timetable on Mondays and Wednesdays at 9.00-10.45am.
For Acoustical/Chemistry/Civil/Mech students MATH1054 sessions appear on your timetable also on Mondays and Wednesdays at 9.00-10.45am.

These sessions are live virtual **Blackboard Collaborate sessions** that take place on the **MATH1054 Blackboard** folder "**Bb Collaborate**". Join the session & have one-to-one meetings with someone that can help you with any question from the 20 Module Tests (following the prescribed order in the table below).

• **Assessment:** 100% examination in May/June (covering all 20 modules).

• **Academic Supervisors:**
  – **Aero/Ship:**
    Sem 1: Prof Ian Leary (Mon) & Prof Ian Leary (Wed). Sem 2: *TBA* (Mon) & *TBA* (Wed).

– **Acoustical/Chemistry/Civil/Mech:**
Sem 1: Dr Bernhard Koeck (Mon) & Dr Armando Martino (Wed). Sem 2: *TBA* (Mon) & *TBA* (Wed).

• **Selfpaced Organizers:**
Dr Oscar Dias, 54/6003, Tel: 023 8059 5112, ojcd1r13@soton.ac.uk
Dr Nansen Petrosyan, 54/8001, Tel: 023 8059 5111, N.Petrosyan@soton.ac.uk

• **Available help:**
Quick queries: You can find the 20 Module Tests in the Blackboard folder "20 Module Tests". In this same folder, the week after each test is recommended, you can also find the solution-pdf with the detailed solutions and a video explaining this solution-pdf. You should complete each of these tests at home in 20-30 min with closed books (following the prescribed order in the table below) and only then self-assess your performance by comparing your solution against the solutions-pdf we provide. After this process, if you have queries about any question(s), you should attend the live virtual Blackboard Collaborate sessions that are available in the Blackboard folder "Bb Collaborate" on the schedule described above. In these live sessions your questions will be answered by a maths' staff member or PhD helper. They will have a tablet with a pen and they can share their screen with you. We strongly encourage that you attend these sessions and ask questions, either because you still do not understand how to answer a question from the module test or because you understand it but feel that you could understand it even more deeply.
Note that depending on the hour you join the session, it might be busy and you might need to wait a bit to get the help. As a general tip, we recommend you join at the beginning of the session. We will evaluate these sessions every week and, depending on your engagement, we will increase the number of PhD helpers if we find necessary (please note that these sessions you be in place for the first time this year due to Covid and thus we might need some time to evaluate and adjust to your needs).

For all queries (short or long; not necessarily about questions of the 20 Module Tests): Use the **Engineering Mathematics Workshop** (MATH1061).
It is held on:

1. Monday 15-18h, on campus room **44/1041**
2. Wednesday 15-18h, live virtual "Bb Collaborate" of the **MATH1061 Blackboard** (both semesters)

in the 24 teaching weeks, (but not during vacations nor during the January exam period) and **it is also in place during the May exam period up to the final exam**.

• **Schedule:** You must take module tests in the order below. Given that you have 24 weeks for 20 modules, you should aim to complete approximately 1 module per week.

The self-paced system gives you flexibility for illness, academic deadlines, and so on, but in turn requires discipline. If you fall behind (i.e. if you do not complete the Online Class Tests on weeks 7, 12, 19 and 24) you will be sent an automated e-mail, with a copy to your personal tutor. Any particular problems, academic or personal, which prevent you from completing the modules on schedule be discussed at the earliest opportunity with one of the academic supervisors and/or your personal tutor.

Two rules are designed to keep you on schedule. First, the material of the first 5 modules is examined in the multiple-choice Online Class Test 1 of week 7. Similarly the 5 modules of weeks 7-11 are examined in the multiple-choice Online Class Test 2 of week 12. This process repeats in Semester 2 where you have the Online Class Test 3 (in week 7) and the Online Class Test 4 (in week 12). Second, you can study and take more than one test in each week as long as you have passed the previous one (be severe and critic in your self-assessment!). (Take into account also that the University is closed on May Bank Holiday Monday and thus no Bb Collaborate session will happen on this day, and any field assignments/trips etc. you have.)

The following week-by-week schedule is a rough indication where you should be (you can certainly be ahead of it!), and takes into account when in the semester a piece of mathematics is first needed for one of your engineering modules.

Week	Module	Topic
1	14	Vectors I
2	3	Differentiation I
3	4	Integration I
4	6	Differential Equations I
5	5	Complex Numbers I
6		(*Use this week to catch up if you felt behind schedule*)
7	16	Matrices I AND — **Online Class Test 1** —
8	13	Differential Equations III
9	17	Matrices II
10	9	Integration II
11	18	Matrices III
12		— **Online Class Test 2** —
1	15	Vectors II
2	11	Integration IV
3	24	Statistics I
4	25	Statistics II
5	7	Functions
6		(*Use this week to catch up if you felt behind schedule*)
7	8	Differentiation II AND — **Online Class Test 3** —
8	10	Integration III
9	12	Differential Equations II
10	20	Further Calculus II
11	22	Complex Numbers II
12		— **Online Class Test 4** —

For reference, **for MATH1054, Week 1** means the week of **October 4-8** .Then, **Week 2** is the week of**Oct 11-15**, and so on until we reach **Week 11 (Dec 13-17)**. Finally, after the Xmas holidays, we return on what we call **Week 12 (Jan 10-14, 2022)** which is the last week of Semester 1. **Week 1 of Semester 2** is then the week of **31 Jan - Feb 4**.
You notice that the order of the modules is not the natural one (3,4,5,6,7,...): this is because we want you to learn first those modules whose maths will be needed first in other engineering modules.

For further instructions, details and expanded explanations of how this self-paced module operates you should (or must!) read the document "*Module 0 (Detailed Course Description).pdf*" that is in the Blackboard folder "*Module Information*". In particular, read carefully section "*1.Introduction*".