

MACE 60041 Research Methods Programming

Dr Lee Margetts

- What are the learning objectives?
- When will the course take place?
- How is it going to be delivered?
- Where can I get help?
- How will it be assessed?
- What happens at the end of the course?

What are the learning objectives?

- The purpose of the course is to provide an introduction to **MATLAB**, a widely used interactive system for numerical computation
- At the end of the course, all students should be able to undertake basic programming tasks, manipulate data and produce plots
- Although advanced features will not be covered, students will have the confidence to investigate the full capabilities of MATLAB on their own.
- Students will also learn about version control and how to use **Github**.

Course Schedule

Date	Method of Delivery	Topic
Semester 1 Week 1	Lecture	Programming
Semester 1 Week 2	Self Study	1 Getting started & 2 Fundamentals
Semester 1 Week 3	Computer Help Session	Q&A about Lessons 1 & 2
	Self Study	3 Matrices & 4 Graphics
Semester 1 Week 4	Computer Help Session	Q&A about Lessons 3 & 4
	Self Study	5 Programming & 6 M-Files
Semester 1 Week 5	Computer Help Session	Q&A about Lessons 5 & 6
	Self Study	GIT
Semester 1 Week 6	Computer Help Session	Q&A about GIT
	Practice Test	Multiple Choice Quiz – MATLAB & GIT
Semester 1 Week 7	Final Assessed Test	Multiple Choice Quiz – MATLAB & GIT

Help Sessions

The course is delivered through self-study and face to face help sessions. Please check your personal timetable for the date, time and location of your session. **Please do not attend any other sessions due to lack of space.**



How should I study?

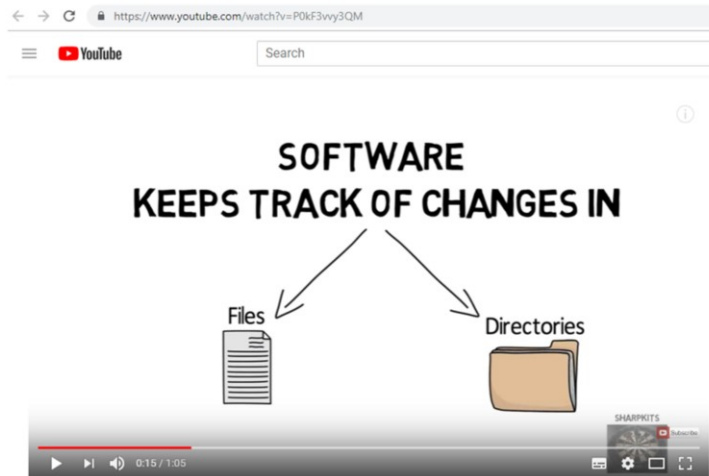
The most effective way to learn how to use a programming tool is through practice.

- Students are able to work through each lesson at their own pace using MATLAB & GITHUB in the teaching clusters
- Each lesson introduces new concepts and commands
- A simple exercise allows students to test their own understanding
- More complicated exercises are provided for further study
- Each student will be given help through timetabled slots
- As the course is delivered through self-study, there is flexibility to carry out the work at any time

MACE 60041 Research Methods MATLAB Demo

MACE 60041 Research Methods Git Video

What is Version Control with Git?



<https://www.youtube.com/watch?v=P0kF3vvy3QM>

Where can I get help?

- The Blackboard forum can be used to request help or clarification about any part of the course at any time
 - It may take a while to get a response, especially if a question is posted outside normal work hours or at the weekend, so please leave plenty of time for completing all the lessons
 - It is possible to leave anonymous posts if you are too shy to use your own name
- Graduate Teaching Assistants will be available during the timetabled help sessions to answer questions

How will MATLAB/GIT course be assessed?

- The course will be assessed through a multiple choice quiz
 - 30% of the marks for MACE 60041 Research Methods
- The quiz will take place in a timetabled session in Semester 1 Week 7
 - It will appear on your timetable as one of the computer sessions
- The quiz will be delivered online through Blackboard
- You will have the opportunity to test your knowledge through a practice quiz in Semester 1 Week 6!

What happens after the course?

- It is likely that students will wish to refer to the online MATLAB course materials until the end of the academic year (September 2022)
 - The lessons will be available on Blackboard all year
- MATLAB is also taught in the Experimental Methods unit
- MATLAB may be used in the other taught units
 - This depends on your degree programme
- Help can be arranged for MATLAB use in MSc dissertations

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