

# MATLAB CRASH COURSE, OCTOBER 2021

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KATHRYN GILLOW ([kathryn.gillow@maths.ox.ac.uk](mailto:kathryn.gillow@maths.ox.ac.uk))

FABIAN LAAKMANN ([fabian.laakmann@maths.ox.ac.uk](mailto:fabian.laakmann@maths.ox.ac.uk))

Course website: <https://www.maths.ox.ac.uk/members/students/postgraduate-courses/msc-mmssc/introduction-matlab>

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## Objectives

The objective of this course is to give an introduction to MATLAB and the essentials of MATLAB programming. This course will last about nine hours and will consist of a mixture of lectures and practicals. **The best way to learn the software is by using it.** There will be no grades, and no such thing as a stupid question.

## Useful references

D.J. Higham and N.J. Higham, *MATLAB Guide*, SIAM, 2005

T.A. Driscoll, *Learning MATLAB*, SIAM, 2009

C.B. Moler, *Numerical Computing with MATLAB*, SIAM, 2006

(freely available online: <http://www.mathworks.com/moler/> )

MATLAB documentation: `doc` from the command window or `help method`

MATLAB Cody: <https://www.mathworks.co.uk/matlabcentral/cody/>

## MATLAB installation instructions

As a student at Oxford you're entitled to a free copy for your personal machine. Follow the link at <https://www.maths.ox.ac.uk/members/it/software-personal-machines/matlab>. Note, you will need your single sign on details in order to do this.

## Tentative timetable:

### MONDAY, OCTOBER 4<sup>th</sup>

Room	Time	Topic
L6	11:00 – 12:30	Introduction Theory 0: Basic operations with the command window Practical 0
L6	13:30 – 15:00	Practical 0 (cont.) Theory 1: Scripts, Logic, Control Structures & Anonymous Functions
L6	15:30 – 17:00	Practical 1

### TUESDAY, OCTOBER 5<sup>th</sup>

L6	10:00 – 11:00	Theory 2: Cell arrays, Functions & Programming Practical 2
L6	11:30 – 13:00	Practical 2 (cont.)
L6	14:00 – 15:30	Theory 3: Graphics Theory 4: Built In Functions Practical 3 Practical 4