MATLAB installation and training modules **

Installation

MATLAB is available for students to download and install on their own computers.

Full instructions for installing MATLAB on both Windows and Mac are available from <u>Student IT</u> (https://studentit.unimelb.edu.au/software).

Installing the software on your own computer is recommended; however, you can also run MATLAB remotely through myUniApps (https://myuniapps.unimelb.edu.au/). If you do this, it is important that you save your all your working files (scripts, figures etc.) to your local computer hard drive so that you don't accidentally lose them.

Mathworks training modules - own pace

The MathWorks training modules on this page are provided as a resource for students to familiarise themselves with the basics of MATLAB commands and programming, as well as some of the more specific tasks involved in answering the assignment questions. Depending on your prior level of experience with MATLAB, you may wish to complete some or all of them prior to commencing the assignment. They may also help you to troubleshoot your scripts if you run into any errors.

The modules that form part of the **MATLAB Onramp** course introduce students to the basics of MATLAB and are intended for students with little or no prior experience with this software. The modules from the other courses are more specific to the assignment tasks, and students can undertake these if they are unfamiliar with these concepts or would like a quick refresher course.

Instructions

- 1. <u>Sign up</u> ⇒ (https://au.mathworks.com/login/?form_type=tah_portal) for a Mathworks account (if you don't have one already) with your university email address.
- 2. Go to the <u>University of Melbourne MATLAB portal (https://www.mathworks.com/academia/tah-portal/the-university-of-melbourne-30342764.html)</u>

Scroll down to the "Learn to use MATLAB and Simulink" section.

Under Get free Access to Online Courses, click "Explore courses" and sign in.

3. Proceed through the recommended modules of your choice, more details below, including direct links:

Recommended Training Modules

- 1. Course Overview
- 2. Commands
- 3. MATLAB Desktop and Editor
- 4. Vectors and Matrices
- 7. Calling Functions
- 8. Obtaining Help
- 9. Plotting Data

Computational Mathematics -> <u>Introduction to Symbolic Math with MATLAB</u>

(https://matlabacademy.mathworks.com/details/introduction-to-symbolic-math-with-matlab/symbolic)

- 1. Introduction
- 2. Creating Symbolic Variables
- 3. Mathematical Expressions with Symbolic Variables
- 4. Creating and Solving Symbolic Equations
- 8. Creating Symbolic Functions

Computational Mathematics -> <u>Solving Ordinary Differential Equations with MATLAB</u>
(https://matlabacademy.mathworks.com/details/solving-ordinary-differential-equations-with-matlab/odes?s_eid=PSM_15028)

1. Solving ODEs Numerically