Tutorials - Mathematica

The first three tutorials are excellent for new users, and can be assigned to students as homework to learn Mathematica outside of class time.

- **Hands-on Start to Mathematica (video)**

  Follow along in Mathematica as you watch this multi-part screencast that teaches you the basics—how to create your first notebook, calculations, visualizations, interactive examples, and more.

- **Hands-on Start to Wolfram Mathematica and Programming with the Wolfram Language (book)**

  Learn Mathematica at your own pace from authors with 50+ years of combined Mathematica experience—with hands-on examples, end-of-chapter exercises, and authors' tips that introduce you to the breadth of Mathematica with a focus on ease of use.

- **Mathematica & Wolfram Language Fast Introduction for Math Students (online book)**

  Use this tutorial to learn about solving math problems in the Wolfram Language—from basic arithmetic to integral calculus and beyond.

- **What's New in Mathematica 11**

  Provides a list of new functionality in Mathematica 11, and links to documentation and examples for these new features—including 3D printing, audio processing, machine learning and neural networks, and text and language processing.

- **How To Topics**

  Access step-by-step instructions ranging from how to create animations to basic syntax information.

- **Mathematica Resources**

  Browse Wolfram's large collection of learning materials and support resources.

Mathematica Online

- **[Hands-on Start to Mathematica Online](#) (video)**

  This tutorial screencast series provides step-by-step instructions to get you started with Mathematica Online—from creating your first notebook complete with text, calculations, visualizations, and interactive examples, to sharing your notebook with others for collaboration and viewing through the Wolfram Cloud.

Wolfram|Alpha Pro

- **[Tour of Wolfram|Alpha](#)**

  New to Wolfram|Alpha? Take a tour to learn what you can do with Wolfram|Alpha, and explore additional features you get with Wolfram|Alpha Pro.

Teaching with Mathematica

Mathematica offers an interactive classroom experience that helps students explore and grasp concepts, plus gives faculty the tools they need to easily create supporting course materials, assignments, and presentations.

Resources for educators

- **[Mathematica for Teaching and Education](#)—Free video course**

  Learn how to make your classroom dynamic with interactive models, explore computation and visualization capabilities in Mathematica that make it useful for teaching practically any subject at any level, and get best-practice suggestions for course integration.

- **[How To Create a Lecture Slideshow](#)—Video tutorial**

  Learn how to create a slideshow for class that shows a mixture of graphics, calculations, and nicely formatted text, with live calculations or animations.

- **Wolfram Demonstrations Project**

  Download pre-built, open-code examples from a daily-growing collection of interactive visualizations, spanning a remarkable range of topics.

- **Wolfram Training Education Courses**

  Access on-demand and live courses on Mathematica, SystemModeler, and other Wolfram technologies.

Research with Mathematica

Rather than requiring different toolkits for different jobs, Mathematica integrates the world's largest collection of algorithms, high-performance computing capabilities, and a powerful visualization engine in one coherent system, making it ideal for academic research in just about any discipline.

Resources for researchers

- **Mathematica for University Research**—**Free video course**

  Explore Mathematica's high-level and multi-paradigm programming language, support for parallel computing and GPU architectures, built-in functionality for specialized application areas, and multiple publishing and deployment options for sharing your work.

- **Wolfram Language Training Courses**—**Free video courses**

  Explore what's possible with the Wolfram Language, including programming fundamentals and concepts, built-in functions, symbolic expressions, and tips for better, faster coding.

- **Utilizing HPC and Grid Computing**—**Free video course**

  Learn how to create programs that take advantage of multicore machines or available clusters.

- **Field-Specific Applications**

  Learn what areas of Mathematica are useful for specific fields.