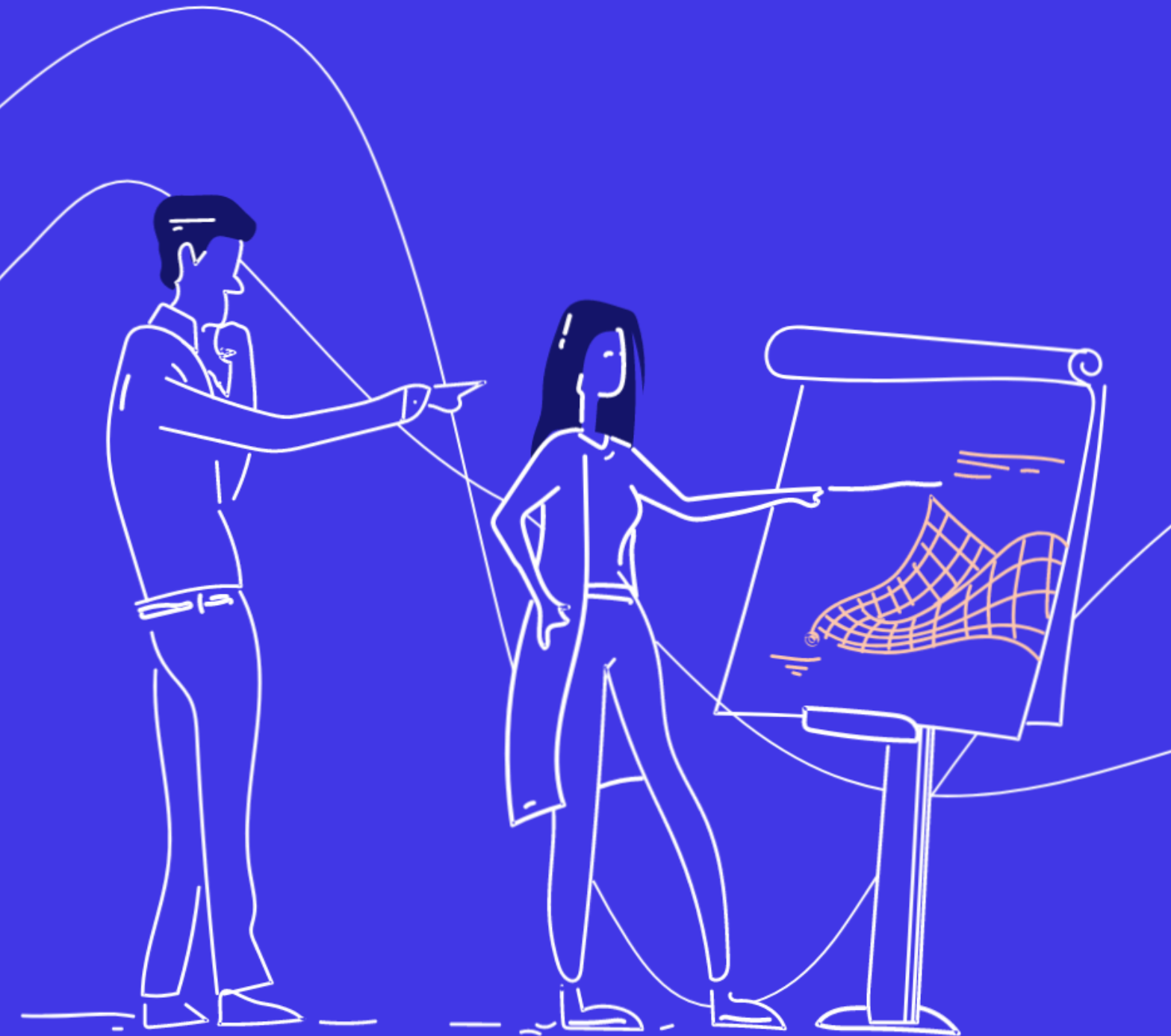# sciengineer

Industrial Automation & Machinery Curriculum

SciEngineer's training courses are designed to help organizations and individuals close skills gaps, keep up-to-date with the industry-accepted best practices and achieve the greatest value from MathWorks® and COMSOL® Products.

Prerequisites
For engineers who are new to MathWorks tools.

Technical Computing & Data Analysis
Skills for using the MATLAB platform to perform data analytics and collaborate on ideas across departments. Suitable for Data Analysts.
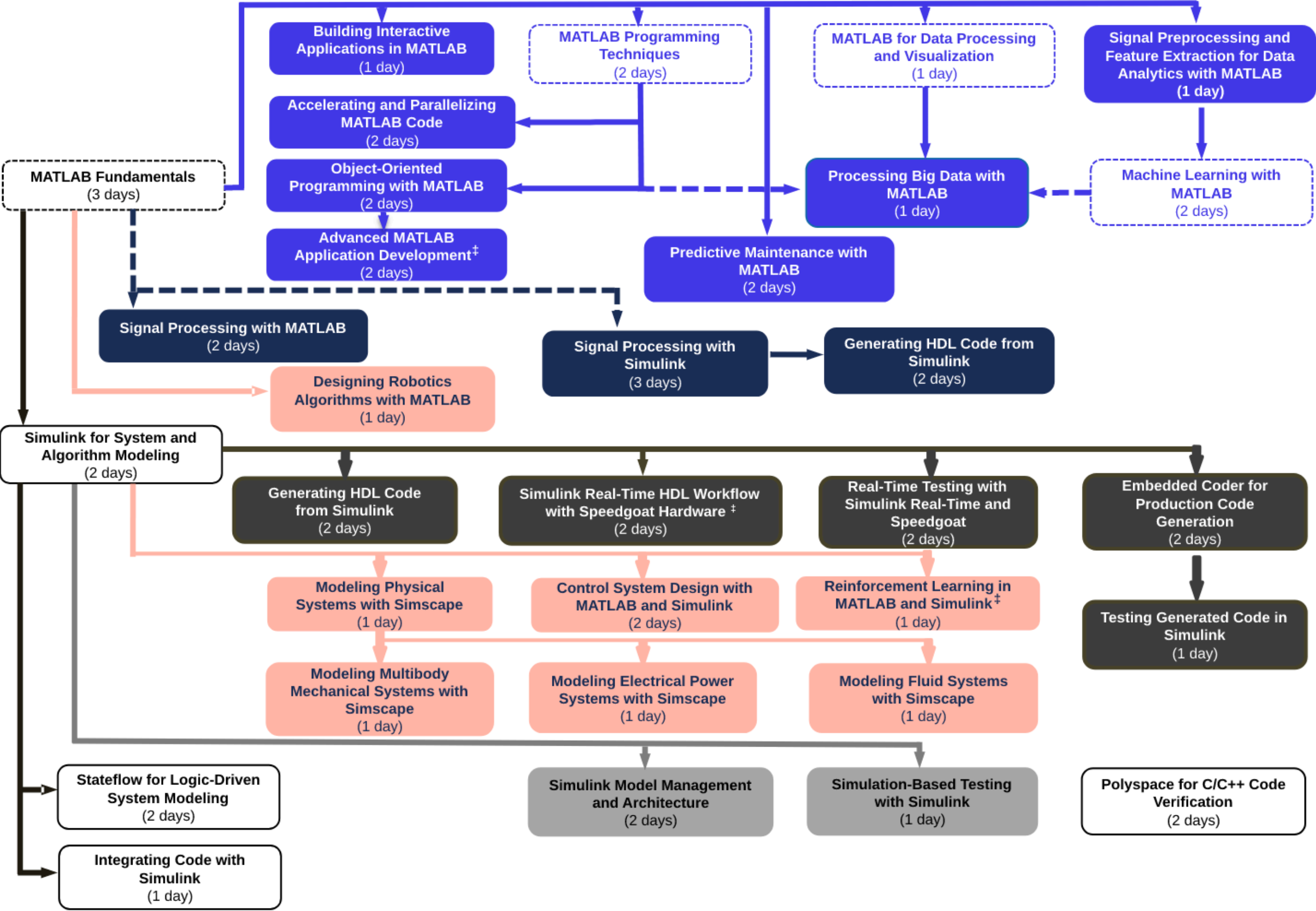
DSP
Proficiency in modeling and analyzing DSP algorithms.Suitable for DSP Developers and DSP Engineers.

Implementation
Competencies for generating and testing code from design models. The code can be used for rapid prototyping or production code deployment. Suitable for Software Engineers.

Model Management & Testing
Proficiency in working on large-scale Simulink projects and applying Model-Based-Design principles in a common workflow. Suitable for System Engineers and Test Engineers.

Modeling & Simulation
Competencies for using the Simulink platform to develop accurate, optimized, and robust system-level designs. Suitable for Control System Engineers.

Self-paced Online Course
* All online courses can be offered in a classroom

Building Interactive Applications in MATLAB
(1 day)

MATLAB Programming Techniques
(2 days)

MATLAB for Data Processing and Visualization
(1 day)

Signal Preprocessing and Feature Extraction for Data Analytics with MATLAB
(1 day)

Accelerating and Parallelizing MATLAB Code
(2 days)

Object-Oriented Programming with MATLAB
(2 days)

Processing Big Data with MATLAB
(1 day)

Machine Learning with MATLAB
(2 days)

Advanced MATLAB Application Development‡
(2 days)

Predictive Maintenance with MATLAB
(2 days)

MATLAB Fundamentals
(3 days)

Signal Processing with MATLAB
(2 days)

Signal Processing with Simulink
(3 days)

Generating HDL Code from Simulink
(2 days)

Designing Robotics Algorithms with MATLAB
(1 day)

Simulink for System and Algorithm Modeling
(2 days)

Generating HDL Code from Simulink
(2 days)

Simulink Real-Time HDL Workflow with Speedgoat Hardware ‡
(2 days)

Real-Time Testing with Simulink Real-Time and Speedgoat
(2 days)

Embedded Coder for Production Code Generation
(2 days)

Modeling Physical Systems with Simscape
(1 day)

Control System Design with MATLAB and Simulink
(2 days)

Reinforcement Learning in MATLAB and Simulink ‡
(1 day)

Testing Generated Code in Simulink
(1 day)

Modeling Multibody Mechanical Systems with Simscape
(1 day)

Modeling Electrical Power Systems with Simscape
(1 day)

Modeling Fluid Systems with Simscape
(1 day)

Stateflow for Logic-Driven System Modeling
(2 days)

Simulink Model Management and Architecture
(2 days)

Simulation-Based Testing with Simulink
(1 day)

Polyspace for C/C++ Code Verification
(2 days)

Integrating Code with Simulink
(1 day)

The Value of an Experienced Training Expert

Our training courses are developed by MathWorks' team of training engineers with exclusive product knowledge gained from working closely with product developers. They acquire significant hands-on experience by using new products months before they are released and are always current on new capabilities.

Learn Relevant Skills

Each course contains a set of learning objectives designed to help participants quickly master necessary skills. Our hands-on approach allows participants to practice, apply, and evaluate their knowledge in the classroom.

Receive Expert Instruction

Our training employs industry-accepted best practices for adult learning and technical instruction, and has developed course content that facilitates a "Presentation, Practice, Test" approach to learning. All training engineers have been selected based on their theoretical knowledge, technical education, experience, and teaching ability.

Increase Team Success Rates

According to post-training surveys, teams who receive 40 hours of training meet project objectives three times as often as those who receive 30 hours or less. This increase in training time raises the likelihood of meeting objectives by 90%.