**How to Run an Onramp Party for Clubs and Societies**

Hosting an Onramp party is a great way to bring together the MATLAB community on campus. It provides an opportunity to connect with students of different majors and increase awareness of the MATLAB group at your school. Below is the list of current Onramp courses available.

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| **Onramp** | **Description** | **Audience** | **Languages** | **Prerequisites** |
| [MATLAB Onramp](https://matlabacademy.mathworks.com/details/matlab-onramp/gettingstarted) | A two-hour self-paced online course that teaches the basics of MATLAB. It is free and interactive; it only requires a MathWorks account to access. This course is very beneficial to those who have never used MATLAB before and those who have. | 1stand 2nd-year students who don’t know a lot of MATLAB or are in an introduction to MATLAB course. This course is designed to teach basic programming skills which can apply to all students. | * Chinese * English * Japanese * Korean * Spanish |  |
| [Deep Learning Onramp](https://matlabacademy.mathworks.com/details/deep-learning-onramp/deeplearning) | A two-hour deep learning tutorial that provides an interactive introduction to practical deep learning methods. Through this course, you will learn to use deep learning techniques in MATLAB for image recognition. | 3rd and 4th-year students who know MATLAB already and are interested in topics such as deep learning or image classification. This course is designed to teach students about neural networks and deep learning which may apply to fields such as computer science, robotics, and image/voice recognition. | * English * Japanese | MATLAB Onramp or basic knowledge of MATLAB |
| [Machine Learning Onramp](https://matlabacademy.mathworks.com/details/machine-learning-onramp/machinelearning) | A two-hour tutorial that provides an interactive introduction to practical machine learning methods for classification problems. | 3rd and 4th-year students who know MATLAB already and are looking to get into the field of AI. This course is very beneficial to Computer scientists. | * English * Japanese * Korean * Spanish | MATLAB Onramp or basic knowledge of MATLAB |
| [Reinforcement Learning](https://matlabacademy.mathworks.com/details/reinforcement-learning-onramp/reinforcementlearning) | A 2-hour course designed to teach users the basics of reinforcement learning. Basic definitions, defining the environment, defining agents, and training the agents are all covered in this course. | 3rd and 4th-year students who know MATLAB already and are looking to get into the field of AI. This course is very beneficial to Computer scientists. | * English | MATLAB Onramp or basic knowledge of MATLAB |
| [Simulink Onramp](https://matlabacademy.mathworks.com/details/simulink-onramp/simulink) | A three-hour course designed to teach users how to create, edit, and simulate models in Simulink. This course is very beneficial to those who have never used Simulink. Unlike the first two, this onramp will have to be downloaded as an add-on to MATLAB. | 2nd, 3rd,and 4th-year students mainly in mechanical and electrical engineering. This course is more designed for those who model systems such as robotics, vehicles, electronics, ODEs, or fluids. | * English * Japanese |  |
| [Stateflow Onramp](https://matlabacademy.mathworks.com/details/stateflow-onramp/stateflow) | A course designed to teach the basics of how to create, edit, and simulate state machines in Stateflow with an interactive tutorial built into Simulink. | 3rd and 4th students who use Simulink. This course deals with state machines which mainly would be in the field of robotics but can apply to other fields that require task scheduling. | * English * Japanese | Simulink Onramp or basic Simulink knowledge |
| [Control Design Onramp with Simulink](https://matlabacademy.mathworks.com/details/control-design-onramp-with-simulink/controls) | Learn the basics of practical image processing techniques in MATLAB. | Students in controls classes – likely to be 2nd-4th year students in mechanical and electrical engineering programs. | * English | Simulink Onramp or basic Simulink knowledge |
| [Image Processing Onramp](https://matlabacademy.mathworks.com/details/image-processing-onramp/imageprocessing) | Learn the basics of practical image processing techniques in MATLAB. | Any student with a good understanding of MATLAB. Image processing can be applied in many fields such as obstacle avoidance in robotics or identifying diseases in the medical field. | * English | MATLAB Onramp or basic knowledge of MATLAB |
| [Signal Processing Onramp](https://matlabacademy.mathworks.com/details/signal-processing-onramp/signalprocessing) | An interactive introduction to signal processing methods for spectral and time-frequency analysis. | 3rd & 4th-year students in mechanical, electrical, and computer science. Signal processing deals with information coming from sensors or devices. | * English | MATLAB Onramp or basic knowledge of MATLAB |
| [Circuit Simulation Onramp](https://matlabacademy.mathworks.com/details/circuit-simulation-onramp/circuits) | Learn the basics of simulating analog electric circuits in Simscape. Use the physical network approach to simulate electrical filters and faulty power supplies, and analyze their performance in the time and frequency domains | 3rd & 4th-year students in electrical, electronics, and mechatronics. This course deals with creating running and analyzing simulations | * English * Japanese | MATLAB Onramp  Simulink Onramp  Simscape Onramp |
| [Object Oriented Programming Onramp](https://matlabacademy.mathworks.com/details/object-oriented-programming-onramp/oroop) | Learn about object-oriented programming, a programming design approach that involves defining elements called objects. Objects combine data (properties) and functions (methods) that operate on that data. | 1stand 2nd-year students who are stepping into programming and know a lot of MATLAB or are in an introduction to MATLAB course. This course is designed to teach basic programming skills which can apply to all students. | * English * Japanese | MATLAB Onramp |
| [Optimization Onramp](https://matlabacademy.mathworks.com/details/optimization-onramp/optim) | Learn the basics of solving optimization problems in MATLAB. Define optimization variables, and objective functions to find the best possible solution to a problem, given a set of limitations. | 1st-3rd year students of any field interested in mathematics and optimization algorithms used to tackle real-world problems. | * English * Japanese | MATLAB Onramp |
| [Power Electronics Simulation Onramp](https://matlabacademy.mathworks.com/details/power-electronics-simulation-onramp/powerelectronics) | Learn the basics of simulating power electronics converters in Simscape. Model a buck converter at varying levels of model fidelity—from an idealized behavior to a fully nonlinear model—and compare their outputs and simulation speeds. | 3rd & 4th-year Electrical, Electronics, and Mechanical students interested in power modeling and simulation. | * English | Simulink Onramp  Simscape Onramp  Circuit Simulation Onramp |
| Simscape Onramp | Learn the basics of Simscape for modeling dynamic systems in various physical domains. Use the physical network approach to quickly represent models of physical systems without explicitly deriving equations. | 2nd, 3rd,and 4th-year students mainly in mechanical and electrical engineering. This course is more designed for those who model systems such as vehicles, electronics, Drivelines, or fluids. | * English | MATLAB Onramp  Simulink Onramp |

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| Timeline | Task | Sample Resources |
| Pre-event | If you’d like to host an Onramp Party at your school, please see the resources below.   * Consider the date and time of the event, and how many sessions to run (e.g. consider splitting up Engineering vs. Non-Engineering students). Depending on your school, reserving a room may take time so **plan ahead.** * Consider what assistance you will need in advance and day of, and who you can ask for help (student organizations, faculty, school staff). | 2\_Planning Logistics of Onramp Party |
| Pre-event | Make a list of what will be needed for the event and what may incur a cost. Make sure to include:   * A room with enough space/chairs, and a screen to show content. * Wi-Fi connectivity, AV, and power cables for students to charge their laptops. * Pizza and drinks * Prizes * The best method for registering attendees. Examples may be a formal registration page through google forms or a Facebook event, but consider what makes the most sense for your event. |  |
| Pre-event | Plan how you will advertise the event around campus, and when you will implement it.   * Reach out to relevant student organizations, faculty, advisors, and school staff to see if they can share event details with relevant groups. * Print out posters and hang them around the campus. * Consider email promotion/distribution lists. Sending mass-wide emails is a great way to get an audience. * Promote the event details on social media sites (Facebook, Twitter, Instagram). | 3\_Onramp Poster Template  4\_Onramp Social Template  5\_Invitation Email |
| Pre-event | Develop engaging content for the event.   * Edit the PowerPoint presentation that’s relevant to your onramp. Templates can be found in the ‘Example\_Presentations’ folder. * If running a competition, create the questions and answers and decide how you will share them with attendees. * If showing videos or a demo, choose or create the videos/demo. | Example\_Presentations folder 7\_Onramp Resources |
| At Event | Take pictures! We want to see how all your hard work has paid off. Tag MATLAB and MathWorks social channels in your posts.  Give out MATLAB Cheat sheets found on our GitHub for students' repo. This is helpful for new MATLAB users! |  |
| Post-event | At the end of the event, request feedback to keep in mind for future events.   * Create a feedback form to hand out or send out a survey via email after the event. * If printing the feedback form, consider the number of projected attendees, and print out a little extra. | 6\_Feedback Form Sample |