

Udacity Accelerate Weekly Program Schedule

Machine Learning Program (12 Weeks)

If you find yourself asking, "What's a module? What's a lesson?", click [here](#) for a refresher on how the online Udacity classroom is organized.

SESSION DAY	SESSION	HOMEWORK
MAY 18	Thinking Like a Machine Learner	<p>In the Model Evaluation and Validation part of the online syllabus, complete the following modules:</p> <ul style="list-style-type: none"> • Statistical Analysis • Data Modeling: do not do the lesson in Data Modeling titled "Datasets and Questions"; this will be covered in the next session.
MAY 25	Data Modeling with the Enron dataset	<p>Finish all modules in Model Evaluation and Validation and review the Predicting Boston Housing Prices project. The following modules under Model Evaluation and Validation should be completed:</p> <ul style="list-style-type: none"> • Evaluation and Validation • Managing Error and Complexity
JUN 1	Model evaluation and validation	<p>Complete and submit the Predicting Boston Housing Prices project (report). In the Supervised Learning part of the online syllabus, complete the following modules:</p> <ul style="list-style-type: none"> • Supervised Learning Tasks • Artificial Neural Networks: do not do Neural Nets Mini-Project lesson; this will be covered in session next week • Bayesian Methods: do not do Bayes NLP Mini-Project lesson; this will be covered in session next week <p>Note that the itinerary for this week is not in sync with that of the current Nanodegree Syllabus.</p>
JUN 8	Natural Language and Processing and Neural Networks	<p>Finish all modules under Supervised Learning review the Finding Donors for CharityML project. The following modules from Supervised Learning should be completed:</p> <ul style="list-style-type: none"> • Decision Trees • Support Vector Machines • Nonparametric Models • Ensemble of Learners <p>Note that the itinerary for this week is not in sync with that of</p>

		the current Nanodegree Syllabus.
JUN 15	Supervised Learning: Building a Classification System	<p>Finish and submit the Building a Student Intervention System project (report). In the Unsupervised Learning part of the online syllabus, complete the following modules:</p> <ul style="list-style-type: none"> • Clustering: do not do the Clustering Mini-Project lesson; this will be covered in session next week • Dimensionality Reduction - PCA: do not do the PCA Mini-Project lesson; this will be covered in session next week <p>Note that the itinerary for this week is not in sync with that of the current Nanodegree Syllabus.</p>
JUN 22	Clustering and Principal Component Analysis	<p>Complete all modules under Unsupervised Learning and review the Creating Customer Segments project. The following modules in Unsupervised Learning should be completed:</p> <ul style="list-style-type: none"> • Feature Engineering • Dimensionality Reduction - Feature Transformation
JUN 29	Unsupervised Learning: Data Clustering	<p>Complete and submit the Creating Customer Segments project. In the Reinforcement Learning part of the online syllabus, complete the following modules</p> <ul style="list-style-type: none"> • Reinforcement Learning: Intro to Reinforcement Learning • Reinforcement Learning: Markov Decision Processes <p>Do not do the Reinforcement Learning module. This content will be used in next week's session.</p>
JUL 6	The ABC's of Q-Learning	<p>Finish all modules under Reinforcement Learning and review the Train a Smartcab to Drive project. The following modules under Reinforcement Learning should be completed:</p> <ul style="list-style-type: none"> • Game Theory
JUL 13	Reinforcement Learning: Constructing a Self-Driving Agent	<p>Complete and submit the Train a Smartcab to Drive project. Start researching ideas for your capstone project - collaborate with fellow classmate and maybe start drafting a proposal!</p>
JUL 20	Capstone Project: Proposal Collaboration	<p>Complete and submit your Capstone Project Proposal and prepare a ~5 minute presentation (speech, powerpoint, etc.) to present to your cohort at next week's session. You may also begin working on the implementation/design.</p>
JUL 27	Presentation of Capstone Project Proposals	<p>Begin/continue working on your capstone project implementation and detailing that work in a preliminary report. At next week's session, you'll prepare for a mock interview. Come next week with a resume handy on your laptop.</p>

AUG 3	Interviewing as a Machine Learnist	Finalize and complete the Capstone Project which may draw from the collaborative draft written earlier. Prepare a ~10/15 minute presentation (speech, powerpoint, etc.) on your implementation to your cohort for next week's session.
AUG 10	Final Capstone Project Presentations	GRADUATE!

Introduction to the Udacity Classroom

You will do all of your learning through the week using the online Udacity classroom - this is the platform you will use to submit projects as well.

You can navigate directly to your Udacity classroom using this link: classroom.udacity.com

The screenshot displays the Udacity classroom interface for the Machine Learning Engineer Nanodegree Program. The top header reads 'MACHINE LEARNING ENGINEER Program Syllabus'. The main content area is titled 'Core Curriculum' and indicates '8 PARTS, 8 PROJECTS'. It lists two core curriculum items:

- 1. Machine Learning Specializations**: Get a short introduction to *domain specialization*, and begin thinking about a problem you could solve with machine learning!
- 2. Machine Learning Foundations**: Get started with introductions to various ML algorithms and complete two projects. You can join the MLND student community here - <https://mlnd-slack.udacity.com/>

The left sidebar contains a navigation menu with the following items:

- Machine Learning Engineer Nanodegree Program
- SYLLABUS
- CORE CURRICULUM (expanded)
- 1. Machine Learning Specializations
- 2. Machine Learning Foundations
- 3. Career: Orientation

Scrolling further down into your syllabus you'll see the core material you'll go through as part of the Nanodegree program. You'll also see certain parts of the syllabus have suggested project due dates. Ignore these due dates as they are auto-generated for every Nanodegree student and don't align with Accelerate due dates. As an Accelerate student, you will need to follow the due dates listed in your weekly program schedule above.

You'll notice that your syllabus is broken up into sections, called parts.

Machine Learning Engineer Nanodegree Program

START ON Lesson 1: Welcome to the MLND Program

BEGIN LEARNING >

SYLLABUS

CORE CURRICULUM

1. Machine Learning Specializations
2. Machine Learning Foundations
3. Career: Orientation
4. Supervised Learning

Project: Titanic Survival Exploration due by May 16th | 0% VIEWED | PROJECTS ● ●

Welcome to the MLND Program

Welcome to the Machine Learning Engineer Nanodegree Program! Get acquainted with the program here.

START >

NOT STARTED 12m

Parts are broken into modules, which are then broken into lessons. Your homework will usually indicate which modules you need to complete each week. When in doubt, please ask your Session Lead.

When viewing concepts in a lesson, you may find additional resources in the classroom below the video or in the resources tab.

Lesson 16: Ensemble B&B

ENSEMBLE LEARNING: AN EXAMPLE

Ensemble Learning An Example

LESSON RESOURCES

- Videos Zip File
- Intro to Boosting.pdf
- Transcripts Zip File
- DEGREE RESOURCES
- Forums
- One-on-One Appointments
- Videos Zip File

Scatter plot showing data points (red 'x' marks) on a coordinate system. The x-axis ranges from 1000 to 10000, and the y-axis ranges from 1000 to 6000. A single green 'x' mark is also present at approximately (4000, 5000).