Program Timeline

Your **Nanodegree program** will be an epic adventure! Each week, you'll learn and apply new skills, and share successes and challenges with your learning community. Whatever your pace or daily schedule along the way, use the timeline below as a tool to make sure you stay on track with your cohort and cross the finish line to graduation. We can't wait to see where your adventure takes you!

*Tasks listed should be completed by the end of each week except for **project submissions**, which are due on the **Monday of the week** that they're listed in. Links will take you to the Nanodegree program to tackle the tasks!*

Click here to download this timeline, and here to see how to mark tasks as completed.

Week	Program Goals

Week 1	❏ Enroll and familiarize yourself with the Nanodegree syllabus
	❏ Complete the **Welcome to the Nanodegree** lessons:
	    ❏ Welcome to the MLND Program
	    ❏ MLND Program Orientation
	    ❏ Getting Started: From Artificial Intelligence to Machine Learning
	❏ Review the Project Prep lesson to familiarize yourself with the optional **Project 0: Titanic Survival Exploration** project description and project rubric

	Model Evaluation and Validation

Week 2	❏ Complete and submit the optional **Project 0: Titanic Survival Exploration**
	❏ Complete the following lessons:
	    ❏ Intro: Model Evaluation and Validation
	    ❏ Prerequisites
	❏ Review the Project Prep lesson to familiarize yourself with the **Project 1: Predicting Boston Housing Prices** project description and project rubric

Week 3	❏ Complete the following lessons:
	    ❏ Measures of Central Tendency
	    ❏ Variability of Data
	    ❏ Numpy & Pandas Tutorials
	    ❏ scikit-learn Tutorial

Week 4	❏ Complete the following lessons:
	    ❏ Evaluation Metrics
	    ❏ Causes of Error

	❏ Nature of Data & Model Building

Week 5	❏ Complete the following lessons:
	    ❏ Training and Testing
	    ❏ Cross Validation
	    ❏ Representative Power of a Model
	    ❏ Learning Curves and Model Complexity

Week 6	❏ Begin working on **Project 1: Predicting Boston Housing Prices**
Week 7	❏ Continue working on **Project 1: Predicting Boston Housing Prices**
Week 8	❏ Complete and submit **Project 1: Predicting Boston Housing Prices** ❏ Review the optional **Kaggle Challenges** lesson
	Supervised Learning
Week 9	❏ Complete and submit **Project 1: Predicting Boston Housing Prices** ❏ Complete the Supervised Learning Intro lesson ❏ Review the Project Prep lesson to familiarize yourself with the **Project 2: Building a Student Intervention System** project description and project rubric

Week 10	❏ Complete the following lessons:
	    ❏ Decision Trees
	    ❏ More Decision Trees

Week 11	❏ Complete the following lessons:
	    ❏ Regression & Classification
	    ❏ Regressions
	    ❏ More Regressions

Week 12	❏ Complete the Neural Networks lesson

Week 13	❏ Complete the following lessons:
	    ❏ Kernel Methods & SVMs
	    ❏ SVM

Week 14	❏ Complete the Instance Based Learning lesson

Week 15	❏ Complete the following lessons:
	    ❏ Naive Bayes
	    ❏ Bayesian Learning
	    ❏ Bayesian Inference

Week 16	❏ Complete the Ensemble B&B Lesson
Week 17	❏ Begin working on **Project 2: Building a Student Intervention System**
Week 18	❏ Continue working on **Project 2: Building a Student Intervention System**
Week 19	❏ Complete and submit **Project 2: Building a Student Intervention System** ❏ Update your resume with the **Resume Review** project. This is optional for students not enrolled in the *Nanodegree Plus Program*.
	Unsupervised Learning

Week 20	❏ Complete the Introduction to Unsupervised Learning lesson ❏ Review the Project Prep lesson to familiarize yourself with the **Project 3: Creating Customer Segments** project description and project rubric

Week 21	❏ Complete the following lessons:
	    ❏ Clustering
	    ❏ More Clustering

Week 22	❏ Complete the Clustering Mini-Project lesson

Week 23	❏ Complete the following lessons:
	    ❏ Feature Scaling
	    ❏ Feature Selection

Week 24	❏ Complete the PCA lesson
Week 25	❏ Complete the PCA Mini-Project lesson

Week 26	❏ Complete the following lessons:
	    ❏ Feature Transformations
	    ❏ Outro

Week 27	❏ Begin working on **Project 3: Creating Customer Segments**
Week 28	❏ Continue working on **Project 3: Creating Customer Segments**
Week 29	❏ Complete and submit **Project 3: Creating Customer Segments** ❏ Update your GitHub profile with the **GitHub Profile Review** project. This is <u>optional</u> for students not enrolled in the *Nanodegree Plus Program*.
	Reinforcement Learning
Week 30	❏ Complete the Introduction to Reinforcement Learning lesson ❏ Review the Project Prep lesson to familiarize yourself with the **Project 4: Train a Smartcab to Drive** project description and project rubric

Week 31	❏ Complete the following lessons:
	    ❏ Markov Decision Processes
	    ❏ Reinforcement Learning

Week 32	❏ Complete the following lessons:
	    ❏ Game Theory
	    ❏ More Game Theory

Week 33	❏ Begin working on **Project 4: Train a Smartcab to Drive**
Week 34	❏ Continue working on **Project 4: Train a Smartcab to Drive**
Week 35	❏ Complete and submit **Project 4: Train a Smartcab to Drive** ❏ Update your LinkedIn profile with the **LinkedIn Profile Review** project. This is <u>optional</u> for students not enrolled in the *Nanodegree Plus Program*.
	Specializations *With your remaining time in the program, you will develop your own unique capstone project by choosing a problem domain of interest and finding a problem which can be solved using machine learning techniques. We encourage you to download this timeline and fill in the goals below with your own activities that correspond to your progress on this project.*

Week 36	❏ Complete the Introduction to Specializations lesson ❏ Review the Project Prep lesson to familiarize yourself with the **Project 5: Capstone Project** project description and project rubric
Week 37	❏ *Define the problem and investigate potential solutions* ❏ ❏
Week 38	❏ *Analyze the problem through visualizations and data exploration* ❏ ❏
Week 39	❏ *Implement the algorithms and techniques needed to solve the problem* ❏ ❏
Week 40	❏ *Collect results about the performance of your solution* ❏ ❏
Week 41	❏ *Construct conclusions about your problem and solution* ❏ ❏
Week 42	❏ Complete and submit **Project 5: Capstone Project**