Self Driving Car Engineer Nanodegree Weekly Outline

	Week #	Material to Cover
Term 1	**First Day**	• Welcome! • Join Study Group • Check-out Knowledge
	Week 1	• Workspaces • Computer Vision Fundamentals
	Week 1	**Project 1: Finding Lane Lines**
	Week 2	• Camera Calibration • Gradients and Color Spaces • Advanced Computer Vision
	Week 3	**Project 2: Advanced Lane Finding**
	Week 4	• Neural Networks
	Week 5	• TensorFlow
	Week 6	• Deep Neural Networks • Convolutional Neural Networks • LeNet for Traffic Signs
	Week 7	**Project 3: Traffic Sign Classifier**
	Week 8	• Keras • Transfer Learning
	Week 9	**Project 4: Behavioral Cloning**
	Week 10	• Sensors • Kalman Filters
	Week 11	• C++ Checkpoint
	Week 12	• Extended Kalman Filters
	Week 13	**Project 5: Extended Kalman Filter**
	End of Term	
	Term Break	• Github Lesson • Geometry and Trigonometry Refresher

	Week #	Material to Cover
Term 2	**First Day**	• Welcome!
	Week 1	• Intro to Localization • Markov Localization • Motion Models
	Week 2	• Particle Filters • Implementation of a Particle Filter
	Week 3	**Project 1: Kidnapped Vehicle Project**
	Week 4	• Search • Prediction
	Week 5	• Behavior Planning
	Week 6	• Trajectory Generation
	Week 7	**Project 2: Highway Driving**
	Week 8	• PID Control • Github Lesson (in Term 1)
	Week 9	**Project 3: PID Controller Project** **Project 4: LinkedIn Profile Project** **Project 5: Github Profile Project**
	Week 10	• Autonomous Vehicle Architecture • Intro to ROS
	Week 11	• Packages and Catkin Workspaces • Writing ROS Nodes
	Week 12	**Project 6: Program an Autonomous Vehicle**
	Week 13	**Project 6: Program an Autonomous Vehicle (Continued)**
	End of Term	Graduate!