**Suggested Lesson Plan: Students Without Extensive Coding Experience**

**Module 1: Introduction to AI Programming with Python**

At your leisure

**Module 2: Intro to Python**

* Lessons (Why Python Programming, Data Types and Operators, Control Flow, Functions and Scripting)
  + 1.5 weeks
* Project\_1 (using an Image classifier)
  + 1.5 week

**Module 3: Numpy, Pandas, Matplotlib**

* Anaconda, Jupyter Notebooks
  + 1 week
* Numpy, Pandas, Matplotib
  + 1.5 weeks

**Module 4: Linear Algebra Essentials**

* Lessons (Introduction, Vectors, Linear Combination, Linear Transformation and Matrices and Linear Algebra in Neural Networks )
  + 0.5 week
* Labs (Vectors, Linear Combination and Linear Mapping)
  + 0.5 week

**Module 5: Neural Networks**

* Lessons (Introduction to Neural Networks, Implementing Gradient Descent and Training Neural Networks)
  + 1 week
* Lesson (Deep Learning with PyTorch)
  + 1 week

**Module 6: Image Classifier Project**

* 2.5 weeks

Notice that in total this sums up to 11.5 weeks. Use the extra time as you please.

**Suggested Lesson Plan: Students With Extensive Coding Experience**

**Module 1: Introduction to AI Programming with Python**

At your leisure

**Module 2: Intro to Python**

* Lessons (Why Python Programming, Data Types and Operators, Control Flow, Functions and Scripting)
  + 1 weeks
* Project\_1 (using an Image classifier)
  + 1 week

**Module 3: Numpy, Pandas, Matplotlib**

* Anaconda, Jupyter Notebooks
  + 1 week
* Numpy, Pandas, Matplotlib
  + 1 week

**Module 4: Linear Algebra Essentials**

* Lessons (Introduction, Vectors, Linear Combination, Linear Transformation and Matrices and Linear Algebra in Neural Networks )
  + 0.5 week
* Labs (Vectors, Linear Combination and Linear Mapping)
  + 0.5 week

**Module 5: Neural Networks**

* Lessons (Introduction to Neural Networks, Implementing Gradient Descent and Training Neural Networks)
  + 1 week
* Lesson (Deep Learning with PyTorch)
  + 0.5 week

**Module 6: Image Classifier Project**

* 1.5 weeks

Notice that in total this sums up to 8 weeks. Use the extra time as you please (Notice that you have 3.5 weeks of extra time if you choose to use it).