

# CSCC11 Anki

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## 1 LEC 1

**What 2 phases are ML methods broken into?** Training Phase and Application Phase

**Training Phase** A model is learned from a collection of training data

**Application Phase** the model is used to make decisions about some new test data

**What are the different types of Machine Learning?** Supervised Learning, Unsupervised Learning, Reinforcement Learning

**Supervised Learning** The training data is labelled with the correct answers

**What are the types of Supervised Learning?** Classification and Regression

**Regression** Supervised Learning where outputs are real-valued

**Classification** Supervised Learning where outputs are discrete labels

**Unsupervised Learning** Deriving patterns and structure from unlabelled data

**Reinforcement Learning** An agent seeks to learn optimal actions to take based on the state of the world, and learn from the consequences of past actions.

**What are the questions we must ask ourselves when using Machine Learning?**

- How do we parameterize the curve?
- How do we determine fitness?
- How much time do we have?
- How do we prevent overfitting?

**Overfitting** When a model fits the training data well, but performs poorly on test data

**Noise** Properties of the input that are not relevant to the task at hand