1. Math & Statistics



| **Module** | **Time** (**Mins**) |
| --- | --- |
| Module 1: Probability Basics |  |
| Module 2: Random Variables and Probability Distributions |  |
| Module 3: Descriptive Statistics |  |
| Module 4: System of Linear Equations |  |
| Module 5: Matrices |  |
| Module 6: Vector Spaces |  |
| Module 7: Linear Independence, Basis and Rank |  |
| Module 8: Social Networks – Random Graphs |  |
| Module 9: Intro to Probability |  |

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## Foundations of Probability

## Sample spaces and events

## Counting Rules

## Calculate probability using simple events

## Venn diagrams

## Permutations & Conditional Probability

## Factorials

## Introduction to permutations

## Combinations

## Dependent probability