

## MODULE 22 : Vocab & Key Terms

# Financial Probabilities

### Probability

A measure of the likelihood that an event will occur, between 0 and 1.

### Event

An outcome or a set of outcomes of a random phenomenon or experiment.

### Sample Space

The set of all possible outcomes in a probability experiment.

### Mutually Exclusive Events

Two or more events that cannot occur at the same time.

### Independent Events

Events where the occurrence of one does not affect the probability of the other.

### Dependent Events

Events where the occurrence of one event affects the probability of the other.

### Expected Value

The average value of a random variable over a large number of experiments or trials.

### Conditional Probability

The probability of an event occurring given that another event has already occurred.

### Compound Probability

The likelihood of two or more independent events occurring together.

### Probability Axiom

A fundamental rule in probability stating that the probability of the entire sample space is 1.

### Addition Rule

A rule used to find the probability of the union of two events.

### Multiplication Rule

A rule used to find the probability of the intersection of two independent events.

### Law of Total Probability

A principle that breaks down the probability of an event into a sum of probabilities under different conditions or scenarios.

### Random Variable

A variable whose value is subject to variations due to chance.

### Probability Distribution

A mathematical function that provides the probabilities of occurrence of different possible outcomes.

### Normal Distribution

A probability distribution that is symmetric about the mean, showing that data near the mean are more frequent in occurrence than data far from the mean.