# M4L21. Module Summary

## Slide #1Module Summary

We discussed five topics in this module.

## Slide #2Decisions with Certainty

Decisions with certainty.

We learned how to build decision trees to visualize decisions and payoffs.

## Slide #3Decisions with Uncertainty

The second topic is decisions with uncertainty with probability and payoff.

We discussed how to use the chance node to describe those uncertainties and the expected value rule.

Risk-neutral managers are expected value maximizers when making decisions.

## Slide #4Analyze Sequential Decisions Under Uncertainty

We also discussed how to use decision trees to analyze sequential decisions under uncertain business environments and illustrated how to use the decision tree to calculate the value of information.

## Slide #5Risk Utility Function - Exponential

Many people are not risk-neutral and most of us are risk-averse or risk-loving.

## Slide #6Risk Utility Function - Exponential

Risk utility function, particularly exponential function for risk=averse managers, can model our risk tolerance behaviors.

## Slide #7Calculate value of risk-mitigation technology

The risk utility function can be incorporated into the decision tree model to help managers analyze decisions and choose a course of actions that maximizes their certainty equivalent value of risky decisions.

This method can also be used to calculate the value of risk-mitigation technologies.