

## Course/Module Outline

### **Module I: Introduction to Optimization and Linear Programming**

1.1 Evolution of decision analysis and optimization techniques

1.2 Introduction to Optimization and LP

1.2.1 The MP approach

1.2.2 Linear Programming and assumptions

1.2.3 LP theory: matrix solution and interpretation

1.2.4 Solving basic LP problems using MS Excel SOLVER

1.2.5 Techniques for formulating basic LP problems

1.2.6 Duality and sensitivity analysis: and basic relaxation of LP assumptions