

**IE4243 / ISyE4803**  
**Decision Modeling & Risk Analysis**

<https://klpoh.github.io/courses/ie4243/>



**Lecture Notes**

**GeorgiaTech-NUS-SJTU**  
**Summer Program**  
**Shanghai 2024**

**Kim Leng POH, Ph.D.**

Associate Professor

Industrial Systems Engineering & Management

National University of Singapore

Kent Ridge, Singapore 119260

[pohkimleng@nus.edu.sg](mailto:pohkimleng@nus.edu.sg)

<https://isem.nus.edu.sg/staff/poh>

<http://www.facebook.com/pohkimleng>

This page is blank

# **Main Table of Content**

## **Chapter**

1. Introduction
2. Probabilistic Thinking
3. Decision Theory
4. Basic Decision Analysis
5. Decision Modeling using Influence Diagrams
6. Advanced Decision Analysis:  
Modeling Risk Preferences
7. Probability Distribution Assessment
8. Solving Complex Decision Problems:  
The Decision Analysis Process / Cycle
9. Multiple Criteria Decision Making I:  
Analytic Hierarchy Process
10. Multiple Criteria Decision Making II:  
Multiple Attribute Decision Making

This page is blank.