

Title (Units): SCI7440 COMPUTER TOOLS FOR SIMULATION (3,3,0)

Syllabus Reviewed by: Michael Ng

Prerequisite and Co-requisite: None

Objectives: This subject introduces how to use computers to analyse real-life managerial problems that do not fall into standard textbook categories; to understand the theoretical basis of discrete-event simulation models; and to communicate technical results effectively to non-specialist managers.

Calendar Description: This subject introduces how to use computers to analyse real-life managerial problems, understand the theoretical basis of discrete-event simulation models and communicate technical results effectively to non-specialist managers.

References: Operations Research: applications and algorithms, by W. L. Winston, Thomson Brooks/Cole, 2004, fourth edition.

Assessment: Continuous assessment (100%)

Subject Content in Outline:

- I. Spreadsheets in OR application (12 hours of teaching)
- II. Simulating stock-control systems (8 hours of teaching)
- III. Financial analysis in spreadsheets (10 hours of teaching)
- IV. Computer simulation models (12 hours of teaching)