101-2 Preliminary Syllabus, Da-Yeh Univ

Information			
Title	系統模擬	Serial No. / ID	0764 / IEI4042
Dept.	工業工程與科技管理學系	School System / Class	大學日間部4年1班
Lecturer	陳偉星	Full or Part-time	專任
Required / Credit	Optinal / 3	Graduate Class	Yes
Time / Place	(二)567 / H729	Language	Chinese

Introduction

In this course simulation modeling and analysis will be introduced. Upon successful completion of this course, you are expected to be able to design and analyze simulation experiments with the aim of developing solutions to manufacturing and service system problems. In specific, you will

? learn the concepts of simulation,
? review/learn statistical distributions,
? conduct system simulation using ARENA software for coding your models, and
? interpret simulation outputs, output analysis techniques using Arena ’ s tools.

Outline

Chapter 1: What is Simulation? (1 week)
Chapter 2: Fundamental Simulation Concepts (3 weeks)Appendix C: Probability Basics, Random Variables, Sampling and Sampling Distributions, Point Estimation and Confidence Intervals,Appendix D: Exponential and Triangular Distributions, p. 506, p. 512Sections 12.1?12.2: Random-Number Generation, Generating Random Variates,
Chapter 3: A Guided Tour to Arena (2 weeks)
Chapter 4: Modeling Basic Operations and Inputs (3 weeks)Midterm Examination
Proposal Submission Deadline: Apr 24, 2007.
Chapter 5: Modeling Detailed Operations (4 weeks)
Chapter 6: Terminating Statistical Analysis (2 weeks)Last two weeks will be reserved for the project presentations

Prerequisite

Probability Basics, Random Variables, Sampling and Sampling Distributions,