IDS 420 Fall 2012 Business Models Simulation

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Section #33589/25395 TR 2:00-3:15 Room: SCE408 Blackboard Site: ids420.fall.2012

Office: UH 2407   Hours: TR 1:00 – 2:00 (other hours by appointment)

Scope:

With advances in information technology and systems, business enterprises large and small are adopting simulation to analyze strategic decisions about investment, marketing, product introduction, and operational policies concerning inventory, production planning, supply chain management, etc. This course will be oriented towards demonstrating how simulation can be applied to aid these decisions. It will also provide the foundations of good simulation practice. The simulations will be performed using only MS Excel.

Recommended reference:
Wayne L. Winston, **Simulation Modeling using @Risk**, Updated for Version 4, Duxbury 2001. (ISBN 0-534-38059)

Ho, J.K., **From Data to Information – using data to your competitive advantage with spreadsheet software,** SPRINGS 1996**.** [under Course Documents]

Format:
Lectures, workshops, discussions.
Students work in teams (of 3) on workshop assignments and a term project.

Evaluation:
Workshops: 30% [each member PRESENT receives the same score]
Term Project: 30% [each member receives the same score]
Tests: 2 x 20% [must average 17/20 on tests for A]

Schedule (tentative):

8/28	Introduction	8/30	Random Numbers, Histograms
9/4	PDFs & CDFs	9/6	Foundation of Simulation
9/11	Sampling Distribution	9/13	Confidence Intervals
9/18	Sample Size	9/20	Supply Chain Management I
9/25	Online Auctions I	9/27	eBay Market for Team Project
10/2	Newsvendor Problem	10/4	Corporate Financial Planning I
10/9	TEST 1, Project Progress Report	10/11	Corporate Financial Planning II
10/16	Statistical Process Control I	10/18	Statistical Process Control II
10/23	Supply Chain Management II	10/25	Supply Chain Management III
10/30	Online Auctions II	11/1	Online Auctions III
11/6	Inventory Management I	11/8	Inventory Management II
11/13	Single Server Queuing System I	11/15	Single Server Queuing System II
11/20	Online Auctions IV	11/22	[Thanksgiving]
11/27	Review	11/29	TEST 2
12/4	Team Term Project	12/6	Project Final Report