MKTG 4810
Special Topics: Complex Logistics Systems Modeling & Simulation

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Phone - Office: (940) 565-4693 **Office Hours:** By Appointment
Class Hours: Tuesday 2:00-4:50 **Class Location:** BLB 277

Course Overview:
MKTG 4810 provides a review of published research in the disciplines associated with the simulation of complex logistics systems. Literature chosen for analysis includes both the theoretical background and practical application of the most common analytical tools used in logistics and supply chain simulation. Mutiple modeling approaches will be used with the simulation tool Simio.

Course Objective
To gain experience on applying modern simulation technology for problem solving in business and industry.

Required Text
Jeffrey A Joines and Stephen D Roberts. *Simulation Modeling with Simio: A Workbook*, Simio LLC

Power point presentation will be provided for each lecture.

Class Deliverables		%	Grade:
Homework Assignment	10%	90-100	A
Model Development	20%	80-89	B
Simulation Development	20%	70-79	C
Project Paper & Simulatoin	50%	60-69	D
		below 60	F

Course Policies:
Class participation is very important and you are *expected to play an active role* in regularly discussing the assigned readings or discussion topics. The evaluation of class participation will be based on your level of preparation and the strength of your contributions to our discussion.

Group Assignment-Modeling and Simulation Project
Students will be assigned into groups of 2-3 students for one or more topic areas on the first day of class (total number of groups determined by class size). Each group will be partnered with a company that will define an industry problem that can be addressed with a modeling and simulation method. The groups will then work through the semester developing a project plan, design solution, model and simulation, and supporting analysis and report..

This course is designed to allow undergraduate students the opportunity to pursue a project that includes the use of modeling and simulation for logistics systems to better address a problem that contributes to their professional development. The project is graded based on performance at an appropriate level. The selection of an appropriate project, the project final report, and presentation will be discussed further in class. The project is an ongoing part of the class and you will be required to make progress reports in class. Students will be assigned a topic based on

an industry customer. The purpose of this project is to (1) allow you to immerse yourself into a particular area of logistic thought and study; and (2) provide you with experience in preparing and executing a modeling and simulation study.

The project grade is based on your ongoing class participation as well as your final presentation and report. While presentation and writing styles differ from student to student, appropriate grammar, style, etc. are expected both in presentations and in all written material. The projects will require significant work outside the classroom. This is in addition to the time spent on class preparation.