

A CAPSTONE COURSE FOR THE INFORMATION SYSTEMS MAJOR

*Lewis A. Myers, Jr., Management and Business, St. Edward's University,
3001 South Congress Ave., Austin, TX 78704, 512-448-8713
lewism@stedwards.edu*

INTRODUCTION

Many individual students in the information systems program have completed courses in accounting, economics, finance, human resource management, marketing, operations management, strategic management, and total quality management. Even though some or all of these courses have been completed, a common criticism of these students is that the ability to seamlessly integrate these separate business disciplines into a single business model is absent. The purpose of this paper is to describe a unique pedagogy proposed for use in teaching a special topics course in the information systems program at this university. The course described here could eventually become the capstone course for information systems majors. This paper describes a pedagogy that utilizes a web based business simulation to expose the student to the knowledge and skills that should be in his/her problem solving tool kit prior to entering or beginning the first stage of the Systems Development Life Cycle (SDLC) in the real world. The pedagogy also focuses on the knowledge and skills that should be used in evaluating the system that has been developed during the SDLC. In this course the student develops and uses information systems that are executed and evaluated in an online web based business simulation environment. Part one of this paper presents the pedagogy for a review of each of the individual business disciplines while also learning the mechanics of the online simulation. This part includes a discussion of what some would call a company's theory of business [1] [7]. Part two of the paper discusses a series of information system assignments completed as part of the Systems Development Life Cycle (SDLC) using a web based business simulation as the client organization for the systems being developed [5] [6]. Part three of the paper presents an evaluation of the SDLC projects using a Balanced Scorecard Methodology [9] [12]. The simulation package used in this course is the Foundation business simulation. Foundation is an online web based product of CAPSIM Management Simulations, Inc. of Northfield, Illinois. Foundation provides a simulated business environment in which participants can practice the art and science of strategic planning and decision-making at the top-management level in the company. The simulation is a dynamic business model that develops a life of its own during the play. Small teams (or single players) guide several companies in the same industry within a framework created by the faculty simulation administrator. The simulation model is deterministic but the simulation nevertheless is loaded with realistic uncertainty. The uncertainty stems partly from imperfect economic predictions and partly from the participant's incomplete knowledge of how the simulation works, but most importantly from the unforeseeable, often surprising, and sometimes erratic actions and decisions of other student managers of companies in the same industry. Annual strategic decisions for each company in the industry are made in Research and Development, Marketing, Production, Finance, Human Resources Management, and Total Quality Management. Information students complete projects supporting the strategic decisions required of each company in the simulation. For example these student projects include the development of long-term sales forecasting models to be used by the simulation companies.