Chapter VI

Teaching ERP Concepts in a Capstone Course

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ABSTRACT
An enterprise resource planning (ERP) system is a system that integrates all the different functionalities within an enterprise and which is used to manage the basic commercial functions in a business. Capstone courses are used to integrate materials from different disciplines. This paper describes the use of business processes and ERP systems as a mechanism to provide the integration in the capstone course. The various modules taught in the class are described and issues with the modules are raised and discussed.

INTRODUCTION
Traditionally, universities have offered functionally oriented, discipline specific courses and have been criticized for stove piping and producing graduates who lack the multi-disciplinary focus, knowledge and relationships among the different functional areas that are required to succeed in the business world (Cannon, Klein, Koste, & Magal, 2004). Responding to this, universities have tried a number of integration approaches, such as simulation courses, business process orientation, integrative cases and so forth. One mechanism universities have used to implement the business process integration approach is to use ERP based courses. ERP courses provide a mechanism to change the delivery of education from a functional orientation of accounting, finance, marketing etc to that of a business process oriented approach, the ultimate goal of which is the integration of the curriculum across functions (Beccera-Fernandez, Murphy, & Simon, 2000).
A common model that is practiced in many business schools is for the business core courses to provide an introduction to the discipline and lay the foundation for the integration that is achieved in the capstone experience. The aim of this chapter is to describe an integrative capstone course using ERP specifically the use of SAP at Miami University. We start by providing some context to the capstone courses offered at Miami’s School of Business. We then describe the different modules taught in the course.

**Capstone Course Context within Miami**

Miami University emphasizes liberal education in its undergraduate programs. The four principles of liberal education, namely:

- Thinking critically
- Understanding contexts
- Engaging with other learners
- Reflecting and acting must all be embedded in the capstone course

Miami University capstone courses are designed to culminate a liberal education curriculum, as distinct, from culminating a major. The capstone encourages students to integrate aspects of their major with concepts from other related disciplines.

In addition to the liberal education requirement, all business school capstones must be horizontally integrative and provide for the development of multiple skill sets. The business core courses form the foundation of most business school capstones. In many business capstone courses, the student is encouraged to think in terms of not only their major but apply their skill, knowledge, and methods learned in the other business disciplines.

In general, capstone courses do not have a prerequisite beyond the business core. The MIS core as is currently taught at Miami does not have any use of ERP software by the students. The students are exposed to ERP and other enterprise system software, and depending on the instructor, sometimes have seen an ERP demo in the class. This essentially means that the students when they come in to the ERP capstone course have not been exposed to any significant ERP experience, and the course as designed and taught takes this limitation into account.

**BACKGROUND AND OVERVIEW**

The ERP capstone course is conducted over the period of a semester with a class size of typically 25 students. This class size helps the instructor focus on the problems of each individual student. A class size larger than this tends to become unmanageable due to various problems that students face while working on ERP software. The different modules that are covered in the course are as listed next. Each module is explained in detail in the topics that follow:

1. Business process and business process re-engineering
2. Event process chain diagrams
3. Business process hands-on activities
4. Decision making features of an ERP system
5. Business warehouse
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