



Chapter VII

Teaching an Enterprise Project as a Capstone Course of the CIS/BIT Program

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ABSTRACT

This chapter introduces a concept of the capstone course of the CIS/BIT program at the Western Michigan University. The course is composed of lectures and five projects, which are related to each other. The lectures provide knowledge that supports every project. The end-product of this course is prototyped software of an enterprise performance management system, which is demonstrated by each team as an integrated software package. The course is divided in three following parts: Part I: Enterprise System Definition (Classic Knowledge and Skills), Part II: Business Process Integration (Trend-oriented approach), Part III: Enterprise System Development (ERP Prototype-Demo Software). The author hopes that the presented capstone's course concept facilitates the understanding of the business process-driven CIS/BIT program.

INTRODUCTION

The purpose of this chapter is to share the author's experience in teaching this course at Western Michigan University – Haworth College of Business in the CIS/BIT program over the last 20 years (1985-2005). While the course has been evolving in its shape, its main philosophy remains only slightly changed.

At the beginning of the class, the students are typically lost, because they do not have the skills to accomplish a given task, which appears at first too large in scope to conquer. Furthermore, the students usually would like to know how to pass the course with the least amount of effort on their part, a goal that is complicated by the initial reaction of being overwhelmed by the tasks required of them. It is tremendously challenging for the instructor to convince the students that according to the system life cycle development (SLCD), the beginnings of understanding the project tasks include a lot of “unknowns.” However, as the students learn the problem solving process, along with the gained knowledge & skills and passing time, they finish the task successfully. The first six weeks are the most difficult for the students and instructor in gaining mutual confidence.

In reality, nowadays, as far as the students' career is concerned, they usually are most interested in taking jobs as Web masters or network administrators. Only a few students are interested in pursuing careers as application programmers or developers. The former requires programming, which being off-shore outsourced and the latter requires much more thinking in terms of whole organization processes, which looks too difficult to them. Therefore, this course is rather a “must” for them and not necessarily always taken 100% voluntarily. As the term progresses, many realize that in order to be a good Web master and network administrator one must know enterprise organization quite well. Needless to say that in the near future, the most jobs will be offered in application development from the business process integration point of view. Why? Because the job market for Web masters and network administrators is saturated. On the other hand, the outsourcing policy requires strong administration of these kinds of projects in a given place of business processes operations.

THE PURPOSE OF THE CAPSTONE COURSE IN THE CIS/BPI-ORIENTED CURRICULUM

The purpose of the capstone course BIT 4990 Enterprise Project is to apply the whole knowledge and skills that the students have already learned in programming, system analysis & design, and database courses. In this course, this knowledge and skills will be applied in prototyping a moderate complexity project, which will touch the issues of the enterprise-wide systems.

The Course Objectives for Students are as follows:

1. To learn the state of the art knowledge of:
 - a. Information engineering
 - b. Application software engineering
 - c. Project management
2. To provide the student with the knowledge and skills of a:
 - a. Application programmer
 - b. System designer

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