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Teaching the IS'97.2 Course *Personal Productivity with IS Technology*

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Personal Productivity with IS Technology is a new course in the joint curriculum recommendations of AIS, ACM, and AITPA, designed to add to the knowledge and skills of students as knowledge workers. It is intended to bridge the gap between the fundamentals of IS and the SA&D course for majors and to be a stand-alone course for non-majors. The Model Curriculum Guidelines describes the course as:

SCOPE: This course enables students to improve their skills as knowledge workers through effective and efficient use of packaged software. It covers both individual and group work. The emphasis is on productivity concepts and how to achieve them through functions and features in computer software. Design and development of solutions focus on small systems.

TOPICS: End user systems versus organization systems; analysis of knowledge work and its requirements; knowledge work productivity concepts; software functionality to support personal and group productivity; organization and management of software and data; accessing organization data, accessing external data; selecting a computer solution; developing a macro program by doing; designing and implementing a user interface; developing a solution using database software; refining and extending individual and group information management activities.

Background

The traditional approaches to teaching information systems development begin right after the introduction to IS course. Either in or before the intro IS course, all students learn something about using the basic IT tools. These are the "six-pack" of word processing, spreadsheet, email, presentations, graphics, and database. In many curricula students must then master the basics of a programming language.

The systems analysis and design course usually follows either the introductory course or the first programming course. Its thrust is toward the processes and tools used by IS professionals to build large systems. Students are taught the systems development life cycle and alternatives such as prototyping. They learn at least data and process modeling formalisms, and various information gathering techniques.

While this approach has worked effectively it has left a two-faceted gap. IS students are not taught advanced features of the basic tools. Non-majors must choose between overview level knowledge from the introductory course or depth without breadth in a programming language or SA&D course.

IS'97.2 is positioned to remedy the gap. This is straightforward for the non-major student. Any career in business is likely to require the ability to

- manage one's own IT environment,
- customize and tailor standard IT tools, and
- interact with IT professionals.

The student who is specializing in IT has a different gap. Advanced features of the standard tools are not covered leaving each student to their own initiative. IS majors need to get a more systematic treatment of the advanced features of the "six-pack." Second, the student learns mostly about the development of large systems. Individual systems, small systems, and user-developed systems are not part of the traditional development course.

One thrust of the course we have delivered has been to prepare the non-major student to think about and apply IT to their own work. These students can evaluate their tasks and activities and understand how technology might be applied to improve their personal productivity.

The second thrust of the course is to introduce systems development "in the small." There are many parallels between developing small systems and large systems, and of course many differences. In many cases it is easier for students to grasp important principles in the context of small systems. Informal processes, scaled down tools, and operational prototypes can be employed to produce useful systems. In the subsequent systems development "in the large" course, students can be taught the need for methods, methodologies, and rigor.

Presentation Outline

- Role of the course in the IS'97 recommendations
- Relevance of the knowledge worker perspective
- The link between knowledge work and effective IT

- Systems development "in the small"
- Example systems development topic
- Mini-lesson
- Associated exercise (demo)
- IS'97.2 and the Fundamentals course
- IS'97.2 and the Systems Analysis and Design course

The presenters have each taught a course on Personal Productivity with Information Systems Technology. The tutorial provides a brief background of our courses. Parts of a pair of in-class and assigned exercises will be presented and demonstrated. These illustrations have been selected to illustrate the introduction of important principles with simple and intuitive materials.