> *information technology. … Information Systems focuses on the information aspects of information technology. Information Technology is the complement of that perspective: its emphasis is on the technology itself more than on the information it conveys. IT programs exist to produce graduates who possess the right combination of knowledge and practical, hands-on expertise to take care of both an organization's information technology infrastructure and the people who use it. (CC 2005, p. 14).*

The other recently published document that specifies the Information Technology discipline is the IT model curriculum, IT 2008. This document, approved in late 2008, defines the Information Technology Body of Knowledge and an undergraduate curriculum for the IT discipline. In comparing the curriculum specified in IT 2008 and the core of this IS curriculum, we can clearly see that the disciplines share areas of interest, such as Data and Information Management, IT Infrastructure, and Human Computer Interaction, but that there are also specific areas of distinction. Particularly important is the IS emphasis on Systems Analysis and Design (including Business Analysis and Business Process Design and Management), IT Strategy, Management, and Acquisition, and Enterprise Architecture. It is very likely that the discussion regarding the identities of the IT and IS disciplines will continue actively during the next several years.

8. RELATIONSHIP BETWEEN THE FUNDAMENTALS OF IS COURSE, THE MINOR, AND THE MAJOR

Prerequisite Technology Skills: The prerequisite skills level provides a personal capability for student use of information technology. Several applications useful to students and graduates are covered, including: word processing, Web browsing, electronic mail, spreadsheet processing, database management, presentation graphics, and external database retrieval. Although word processing is included here, it is typically acquired prior to formal courses. Some institutions provide the prerequisite IS skills level via a course required of all students. Other institutions enable students to acquire this competency through laboratories with computer-based tutorial modules. Others assume a proficiency gained at high school or based on personal experience. Competency tests may be used to ensure adequacy of prior knowledge. The Information Systems faculty may also have major responsibilities for remedial work relative to the prerequisite skills.

All Students: The Fundamentals of Information Systems course provides all students with an introduction to the purposes, uses, and value of information systems and information resources in organizations. It introduces concepts and methods by which IT professionals design and implement systems and explains the technologies and processes for providing information and communications resources. The course illustrates opportunities for business professionals to employ technology resources. Students can build on their prerequisite understanding to investigate useful concepts, functions, and capabilities provided by information systems. Exercises will assist students in understanding system development processes, effective use of information systems, and quality concepts in providing inputs and using outputs from systems.

Exercises may enable students majoring in functional areas to gain additional IS skills and system understanding through use of application packages in their major fields of study, such as accounting, finance or marketing. Team projects with actual clients demonstrate applied learning.

IS Minors: In addition to the courses all students take, an IS minor consists of a subset of the major courses that form a cohesive set of knowledge complementary to the student's major field of study. Individuals with a minor in IS often act as technology liaisons and as functional area representatives on teams to develop and enhance major applications. A minor may be tailored to

these unique functional area requirements, such as marketing or accounting, or a second field, such as health sciences.

IS Majors: An IS major consists of the entire model curriculum targeted for a particular career track. Students proficient at this level are prepared to enter a career in the IS field. They have competencies in basic technical areas and apply these to business processes and project management. Graduates of IS programs can work for different industries such as manufacturing, financial services, health care, and others including information technology providers of hardware, software, and services.

Student Groups	Curriculum Model
All Students	IS 2009.1 Fundamentals of Information Systems
IS Majors and Minors	IS 2009.7 IS Strategy, Management, and Acquisition IS 2009.3 Enterprise Architecture IS 2009.2 Data and Information Management
IS Majors	IS 2009.6 Systems Analysis & Design IS 2009.5 IT Infrastructure IS 2009.4 IS Project Management

Figure 2. Representative IS 2009 Curriculum Design for All Students, IS Minors, and IS Majors

9. PRE- AND CO-REQUISITES TO AN INFORMATION SYSTEMS DEGREE PROGRAM

There are general academic requirements that students should meet prior to taking formal IS courses (prerequisites) or concurrent with IS courses (co-requisites). These pre- and co-requisites consist of both IS and non-IS topics. Fundamentally, students are expected, as a prerequisite, to have a basic proficiency in personal computing tools such as e-mail, Web browsing, spreadsheets, word processing, desktop database management systems, presentation graphics, and external database retrieval tools. Further, as specified in the context of the foundational skills, IS students should be able to communicate effectively both orally and in writing. They should be able to apply both quantitative and qualitative data analysis techniques. IS graduates should have acquired strong interpersonal skills. They should also have a basic understanding of the main functional areas of an organization and how it operates within the global environment.

The overview below lists the topics that are relevant as pre- and co-requisites for an IS degree program. Some of these topics should be prerequisites while others may be interleaved with IS courses. They address the foundational knowledge and skills that all IS students should have. Many of these pre- and co-requisites are part of what is often referred to as the 'General Education' part of an undergraduate degree, providing a solid foundation in behavioral, social, and natural sciences. General Education courses endow students with a basis for lifetime learning and prepare them for becoming well-rounded members of the professional workforce. Therefore, if the topics listed below are not included in an institution's General Education curriculum, then the institution should provide courses that cover them and make these required for all IS students: