770   Information Technology Systems for Business

Introduction

770 INFORMATION TECHNOLOGY SYSTEMS FOR BUSINESS is designed to familiarise students with the fundamental concepts, theories and frameworks in the management of information systems. The subject provides students with an overview of the organisational context for information systems. Information systems (IS) architecture, IS development process, knowledge management, enterprise IT, virtual organisations and IS and IT alignment are explained, and serve as the basis for understanding the central role of IS in today's business setting.

Case studies

Real-life case studies are incorporated into the subject to provide opportunities for students to apply theory into practice in an authentic context. Examples of cases include

Applegate, L. and K. Davis
Xerox: Outsourcing Global Information Technology Resources
Case #9-195-158
Harvard Business School Publishing
3 June 2002

Prokesch, S.E.
Unleashing the Power of Learning: An Interview with BP's John Brown
Harvard Business Review
Sep-Oct 1997

Nolan, R., K. Porter and C. Akers
Cisco Systems: Web-enablement
Case #9-301-056
Harvard Business School Publishing
28 November 2005

Assessment

Case analyses (team and individual)	45%
Discussion board activities	30%
Final examination	25%

Who should attend

- Managers seeking to improve business productivity through IT application
- Executives who need to evaluate IT from a business perspective
- Business practitioners engaged in projects that involve the implementation of IT solutions
- IT practitioners wishing to broaden their knowledge of business applications beyond technical boundaries

Learning objectives

Upon completion of this subject, students should be able to

- identify ways of using IT to leverage business opportunities and enhance business productivity
- make appropriate decisions in the selection of information system solutions within an organisation
- recognise current technology trends and IT adoption best practices
- participate in the development of organisational IT policies and strategies

Delivery method

The subject is delivered online over a 12-week period, with an assigned Professor acting as mentor. The class will comprise students from different countries and industry backgrounds. Practical case studies and discussions help to stimulate learning and knowledge exchange, while an examination at the end of the subject will help students review and apply the knowledge and skills learnt.

Prerequisites

None

Syllabus

Segment 1:
Introduction

Students are introduced to the syllabus, the resources and communication tools available within the course.

Segment 2:
Information
Systems Architecture

Information systems architecture is the blueprint of an organisation's resources, or how the foundation elements connect to provide computing capability to the organisation. Students are introduced to the basics of information systems architecture and the four building blocks – hardware, software, telecommunications and databases. To identify new technologies that have the greatest business potential, the segment looks at new IT trends that are finding widespread acceptance in various applications.

Segment 3:
Building Information Systems

The different processes used to develop information systems applications are explained. Students learn to identify management, organisation and technology issues associated with information systems development. Some of the tools and methodologies used for information systems development, including prototyping and outsourcing, are discussed. The importance of project management in information systems development is highlighted, along with project management best practices.

Segment 4:
Managing Knowledge

The management of knowledge in an IT environment facilitates decision making at the organisational level. Students are introduced to the major decision-making IT systems – management information systems (MIS), decision support systems (DSS), executive information systems (EIS) and group support systems (GSS). Knowledge management activities, such as codification, sharing and transfer of knowledge, help organisations effectively create and share knowledge.

Segment 5:
Enterprise Information Technology

The segment examines the deployment of IT systems that span the whole enterprise. Students learn to identify the main challenges associated with the configuration, maintenance and updating of an overall IT architecture. In explaining the layered approach to IT architecture, the segment looks at how supply chain management systems can help link partners and suppliers in relation to procurement and logistics, and how enterprise resource planning can achieve operational and business benefits for the organisation.

Segment 6:
Virtual Organisations

The concept of the virtual organisation, or geographically and temporally distributed entities, raises the importance of networking and organising workers and resources. Students learn about key technologies that can help virtual offices and virtual teams create flexible value chains. Distributed computing, including client-server, three-tier, n-tier and peer computing, are some of the models explored. Security issues are also examined.

Segment 7:
Aligning with Business

Students examine ways in which IT impacts an organisation's business and the need for IT strategy to be aligned to business strategy. The five stages in the evolution of strategic information systems planning are described, as well as the key activities involved in the alignment process. Business process reengineering and valuation methodologies for the evaluation of IT are also covered.

Required textbook

Laudon, K.C. and J.P. Laudon. *Management Information Systems: Managing the Digital Firm* (9th ed). New Jersey: Prentice Hall, 2006.

Global Faculty

U21Global subjects are created by acknowledged experts in their field, usually senior academics who have strong understanding of postgraduate requirements. The subject content is further reviewed by academic specialists who appraise the subject from an independent perspective, ensuring a high-quality, professional product.

Subject Author

Professor Vikram Sethi
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770 INFORMATION TECHNOLOGY SYSTEMS FOR BUSINESS was created for U21Global by **Vikram Sethi**, Chair Professor in the Management Science and Information Systems Department at the Raj Soin College of Business, Wright State University, US. Dr Sethi has published more than 50 articles in refereed journals and conferences, and produced several white papers in the areas of global information systems, human capital management, organisational transformation and information system project risk assessment.

Subject Reviewer

Professor Rajiv Sabherwal
University of Missouri-St Louis

The subject was reviewed by **Rajiv Sabherwal**, University of Missouri Curators Professor, Emery C. Turner Professor of Information Systems, and Director of the PhD programme in business (with information systems emphasis) at the College of Business, University of Missouri-St. Louis, US. His research, which focuses on knowledge management and strategic management of information systems, has led to over 30 publications in leading information systems research journals.

Professors

Students' progress will be guided by dedicated Professor Facilitators based around the world. They provide an international perspective and impart knowledge through a wealth of experience in their field of specialisation. Our Professor Facilitators will help students make sense of the information to enable students to transform the information into knowledge and creative solutions.

Shawn SHAN

Shawn Shan is a business initiatives manager with a leading international information technology company. A former lecturer at the National University of Singapore, Dr Shan teaches information systems management, programme and project management, business process management and management and leadership training. He has held senior management positions in a number of industries, including banking, telecommunications, automobiles and manufacturing. He received his PhD from the National University of Singapore and his MBA from the University of Queensland, Australia.

Marc HUMBERT

Marc Humbert is Professor of Quantitative Methods and Information Technology at Grenoble Ecole de Management in France, where he has taught since 1984. He is also Associate Dean for eLearning and Innovation, having served as Associate Dean of Faculty from 1993 to 2001. Dr Humbert is involved in a number of European consulting projects focused on eBusiness and eLearning. His research interests include the impact of information technology on management and eLearning. He was previously employed as a research engineer at the computer-aided design department of the Philips Centre for Information Technology. He earned his doctorate in Computer Science from ENSIMAG, part of the Institut National Polytechnique de Grenoble, France.