

2800 Information Systems Project Management

Introduction

2800 INFORMATION SYSTEMS PROJECT MANAGEMENT provides students with a sound understanding of project management theory and a comprehensive set of best practices for information systems (IS) project management. The subject is designed to help students manage change at work, co-operate with stakeholders and generally be aware of the complex socio-technical environment in which information systems are delivered and used. The subject provides an overview of the activities involved in an information systems project, from project proposal and adoption through system analysis and design, software production and testing, and implementation and maintenance.

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

Iansiti, M. and G.K. Gill
Microsoft Corp.: Office Business Unit
 Case #9-691-033
 Harvard Business School Publishing
 31 May 1994

Huff, S.L. and E. Murray
Metalco: The SAP Proposal
 Case #9A98E012
 Richard Ivey School of Business
 20 June 2000

Compeau, D., S.L. Schneberger and J. Movold
Waterloo Regional Police Services: The CIMS Project
 Case #9B01E013
 Richard Ivey School of Business
 24 February 2003

Who should attend

- Information technology professionals preparing for project management roles
- Project managers seeking to update their project management skills and develop awareness of current best practices
- Project stakeholders who are concerned with maximising project success and minimising project risk
- Managers preparing to become certified project management professionals

Learning objectives

Upon completion of this subject, students should be able to

- identify the factors likely to affect the success and failure of an IS project
- evaluate project proposals, using a range of financial methods and risk analysis
- estimate the expected resources needed to accomplish an IS project's goals
- create and manage a project schedule by applying critical path analysis and resource levelling methods
- manage an IS project to successful completion through the structured management of project risk
- measure earned value of projects, as part of a project control system

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

Assessment

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

Syllabus

Segment 1: Introduction

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

Segment 2: Information Systems Project Organisation

Information Technology (IT) is implemented through Information Systems (IS) projects, which share many of the features of conventional projects. IS projects imply high levels of uncertainty due to technological uncertainties involved. The segment describes the IS project life cycle, key project metrics and critical success factors. Students are introduced to the IS project work environment and the challenges involved in completing IS projects on time, within budget and with the desired functionality.

Segment 3: Information Systems Project Adoption

The segment presents the cost-benefit method of analysis, along with alternative methods of project evaluation. Students learn to calculate the net present value for a project, identify major cost items in a project and establish a staffing plan. The importance of drawing up a project charter to clarify the objectives and scope of a project are highlighted.

Segment 4: Information Systems Project Planning

The segment provides an overview of traditional systems development methodologies and estimation methods, as well as agile methods. Students explore how software project risk can be dealt with in systems analysis and design. Students also discuss the importance of quality management and compliance standards in IS projects. Different types of IS projects and their features are examined, using a work breakdown structure, followed by a broad framework of the systems development approach.

Segment 5: Information Systems Project Scheduling

The segment presents an introduction to project scheduling, including the critical path method leading to the calculation of an early start schedule, slack and critical activities. Students learn to identify project buffers to protect against unanticipated delays, as well as how to apply project crashing. Students are also introduced to the concept of resource levelling and smoothing to ensure that resources are not overscheduled.

Segment 6: Information Systems Project Implementation and Control

The segment highlights the important aspects of IS project implementation and control, as well as the significance of conducting a project post-mortem. Students explore the benefits and drawbacks of outsourcing and how to effectively manage project risks through risk management planning and process. Methods for controlling projects are examined, including the earned value budgeting method to control project costs. Students also learn how to formally close a project.

Required textbook

Olson, D. *Introduction to Information Systems Project Management* (2nd ed). McGraw-Hill/Irwin, 2004.

Global Faculty

Subject Author

Professor David Olson
University of Nebraska-Lincoln

Subject Reviewer

Professor Wing Lam
U21Global

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.

2800 INFORMATION SYSTEMS PROJECT MANAGEMENT was created for U21Global by **David Olson**, James & H.K. Stuart Professor in Management and Information Sciences at the Department of Management, University of Nebraska-Lincoln. He previously taught at Texas A&M University. Dr Olson teaches courses in management information systems, management sciences and operations management, and has received numerous awards in recognition of his teaching and research excellence. He received his PhD in Business from the University of Nebraska-Lincoln.

The subject was reviewed by **Wing Lam**, Dean of Information Technology Management Programmes and Director of Pedagogy at U21Global. Dr Lam is a former faculty member of the Institute of Systems Science and Programme Manager for Research at the National University of Singapore. He has held consultancy positions with Logica-CMG, Fujitsu (formerly ICL) and Accenture (formerly Andersen Consulting). Dr Lam's research interests include enterprise integration, knowledge management and software engineering management. He has a PhD in Computer Science from King's College, University of London, UK.

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.



Marianna SIGALA

Marianna Sigala is a Lecturer in Operations and Production Management at the Department of Business Administration, University of Aegean, Greece. She is also a Visiting Professor in Operations and Technology Management at the University of Fan S. Noli of Korca, Albania. She previously taught at the University of Strathclyde, Glasgow and the University of Westminster, London in the UK. She has published two books related to information and communications technologies applications and management. Dr Sigala earned her PhD in Technology Management and Operations Management from the University of Surrey, UK.

AFFILIATED UNIVERSITIES

Fudan University



Korea University



Lund University



National University of Singapore



Shanghai Jiao Tong University



Tecnológico De Monterrey



University College Dublin



University of Birmingham



University of Delhi



University of Edinburgh



University of Glasgow



University of Hong Kong



University of Melbourne



University of Nottingham



University of Queensland



University of Virginia



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