

Title (Units): ITEC3005 Strategic Use of Information Technology (3,2,1)

Course Aims: This course aims at providing concepts and techniques for leveraging technology investment and adoption. After completing this course, students will be able to understand the linkage of IT and business strategy, and be capable to derive IT plan effectively for preparing to be a future executive or leader.

Prerequisite: Any ITEC course or COMP1005 Essence Computing

Course Intended Learning Outcomes (CILOs):

Upon successful completion of this course, students should be able to:

No.	Course Intended Learning Outcomes (CILOs)
	Knowledge
1	Describe the concept of strategic thinking, and the relationship between IT strategy and business strategy
2	Explain the various analysis techniques for IT planning
3	Illustrate the basic concepts of IT control and governance
4	Identify the latest IT trends and their impacts to the development of IT strategy
	Skill
5	Apply the various analysis techniques to different cases
6	Prepare an IT plan for a company

Calendar Description: This course provides the concepts and techniques to facilitate students to formulate appropriate IT strategy and plan to fit the company environment.

Teaching and Learning Activities (TLAs):

CILOs	Type of TLA
1,2,3,4	Lectures and examples will be used to allow students to learn the relationship between IT and business strategy. Students will learn the different techniques to analyze the environment of company in order to determine the strategy of IT adoption. During the lecture, students will also gain the knowledge of basic IT control and the influence of latest IT trend to the company.
1,2,3,4,5	To practice the analysis techniques learn in the course, students will conduct exercises including proposing the investment priority of technologies based on their contributions. Students will also participate in case studies to discuss how to manage technology resources effectively.
1,2,3,4,5,6	Students will conduct a project to analyze the environment of a company of their choice and propose the IT strategy for the company. Students will present the report in the class to share their ideas.

Assessment:

No.	Assessment Methods	Weighting	CILOs to be addressed	Description of Assessment Tasks
1	Assignments	50%	1-6	Continuous assessments are designed to evaluate students' understanding on the alignment between IT and business strategy, and the ability to apply the concepts covered in the course to formulate an IT plan.
2	Examination	50%	1-5	Final examination is designed to assess to what extend students have achieved the intended learning outcomes. Questions are designed to measure students' understanding on the course material and the ability to apply the analysis skills.

Assessment Rubrics:

Excellent (A)	<ul style="list-style-type: none"> • Achieves all six CILOs, demonstrating a good mastery of both the theoretical and practical aspects of the knowledge and skills associated with IT strategy and planning • Able to develop and present sound arguments and correct solutions to problems in deriving IT strategy and plan, accompanied by in-depth analysis and insight • Demonstrates a thorough understanding and solid knowledge of IT strategy and planning • Able to draw on a variety of techniques and relevant knowledge and appropriately apply them to new IT planning situations and problems
Good (B)	<ul style="list-style-type: none"> • Achieves all six CILOs, demonstrating a good understanding of IT strategy and planning • Able to develop solutions to problems in deriving IT strategy and plan, accompanied by adequate explanations • Demonstrates a competent level of knowledge of IT strategy and planning • Able to make use of appropriate techniques and knowledge and apply them to IT planning situations and problems
Satisfactory (C)	<ul style="list-style-type: none"> • Achieves most of the six CILOs, demonstrating a basic level of understanding of IT strategy and planning • Able to provide acceptable solutions to problems in deriving IT strategy and plan • Demonstrates an adequate level of knowledge of IT strategy and planning • Able to make use of some techniques and knowledge and apply them to familiar situations
Marginal Pass (D)	<ul style="list-style-type: none"> • Achieves most of the six CILOs, with minimal understanding of IT strategy and planning • Able to provide solutions to simple problems in deriving IT strategy and plan • Demonstrates a basic level of knowledge of IT strategy and planning • Able to apply some techniques and knowledge to a limited number of typical situations
Fail (F)	<ul style="list-style-type: none"> • Achieves less than three of the six CILOs, with little understanding of IT strategy and planning • Unable to provide solutions to simple problems in deriving IT strategy and plan • Knowledge of concepts in IT strategy and planning falling below the basic minimum level • Unable to apply techniques and knowledge to situations or problems

Course Content and CILOs Mapping:

Content		CILO No.
I	Introduction to IT strategy	1,5,6

II	Issues of IT planning	2,5,6
III	Control of IT	3,5,6
IV	Impact of IT trends	4,5,6

References:

- Bernard Boar. The Art of Strategic Planning for Information Technology. 2nd Edition. Wiley, New York, 2001
- Jan De Sutter. The Power of IT – Survival Guide for the CIO. BookSurge, 2004
- Joe Peppard and John Ward. The Strategic Management of Information Systems: Building a Digital Strategy, 4rd Edition, John Wiley & Sons, 2016
- Keri E. Pearlson and Carol S. Saunders. Managing and Using Information System. A Strategic Approach. 5th Edition, John Wiley & Sons, 2013
- Kevin Grant, Ray Hackney and David Edgar. Strategic Information Systems Management, 1st Edition, Cengage Learning, 2010
- Madjid Tavana, Competition, Strategy, and Modern Enterprise Information Systems, Business Science Reference IGI, 2013
- Nansi Shi and Gilbert Silvius, Enterprise IT Governance, Business Value and Performance Measurement, Information Science Reference, 2011
- Paige Baltzan, Business Driven Technology, 6th Edition, McGraw-Hill, 2015
- Paul Griffiths, Strategy-Technology Alignment: Deriving Business Value from ICT Projects, Academic Publishing International, 2011
- Peter Weill and Jeanne Ross. "A Matrixed Approach to Designing IT Governance." MIT Sloan Management Review 46, no. 2 (2005): 26-34

Course Content:

Topic

- I. Introduction to IT strategy
 - A. Concept of strategic thinking
 - B. Business strategy and IT strategy
 - C. IT alignment
- II. Issues of IT planning
 - A. IT performance evaluation
 - B. IT contribution, investment and prioritization
 - C. Technology positioning
 - D. Value chain analysis
 - E. Roles of IT units
- III. Control of IT
 - A. IT governance
 - B. Risk assessment
- IV. Impact of IT trends
 - A. Latest technology trends, such as green IT, online social communication networks, cloud computing
 - B. Impacts of latest technology trends to IT strategy