

COURSE CONTENT

Academic Year	2018/19	Semester	1
Course Coordinator	TEO CHEE CHONG		
Course Code	MT4104		
Course Title	Information Technology Management		
Pre-requisites	Nil.		
No of AUs	3 AU		
Contact Hours	Lecture: 26 hr ; Tutorial: 13 hr ; Lab: 0 hr		
Proposal Date	Dec 2018		

Course Aims

The fundamental objective of the course is to provide you with a basic understanding of how information and communication technology contributes to business value. You will learn managerial concepts and approaches that can contribute towards successful e-business implementations. This course will therefore focus on three areas of student learning:

- a. Enablers and inhibitors of e-businesses (theories and models)
- b. How e-businesses succeed or fail (case studies)
- c. How e-business services are evaluated (assignments)

Intended Learning Outcomes (ILO)

After successfully completing the course, you will be able to:

1. Discuss how Information Technology has evolved.
2. Discuss the advantages and drawbacks of common software development approaches.
3. Propose basic e-commerce solutions with regards to its infrastructure, payment system, security and as a marketing tool.
4. Explain how Information Technology strategies can be aligned with the broader corporate business strategies.
5. Apply the basic approaches of Business Re-engineering Process.
6. Describe the key success factors for developing and implementing large-scale IT projects.

Course Content

List of key topics taught

	Topic	Lecture Duration
1.	Introduction to IT Evolution	2
2.	Software Developments: Advantages and Drawbacks of the Different Approaches	2
2.	Building E-commerce Solutions – Infrastructure, Payment and Security	4

3.	Introduction to E-Commerce	2
4.	E-commerce Marketing and Advertising	2
5.	E-Commerce and E-Business Concepts – Managing B2B E-commerce	2
6.	Aligning IT Strategy with Corporate Business Strategy	2
7.	Building World-Class Business Systems	2
8.	Enterprise Systems – Success Factors for Large-Scale IT Projects	2
9.	Managing Business Value – Business Process Re-Engineering and Disruptive Technologies	2

Assessment (includes both continuous and summative assessment)

Component	Course LO Tested	Related Programme LO or Graduate Attributes	Weighting	Team/ Individual	Assessment rubrics
1. Final Examination	1-6	SLO* A, B, D, G, H	60%	Individual	
2. Continuous Assessment 1 (CA1): Group Project with In-Class Presentation	1-3	SLO* A, B, G, J	20%	Team	See Appendix
3. Continuous Assessment 2 (CA2): Group Project with In-Class Presentation	4-6	SLO* B, D, G, H, J	20%	Team	See Appendix
Total			100%		

Programme Learning Outcomes

✓ **Competency**

- A. Develop an overall awareness of maritime activities, port and shipping industry and their association with economy and trade. Describe and apply concepts and theories in sub-fields as contributing to the maritime industry and integrate various related themes, skills and knowledge
- B. Understand and manage the maritime environment

- C. Apply related information pertaining to procedures, operations and management of maritime entities and operational issues in the maritime industry
- D. Capture and analyse market data using analytical tools, conduct related research in the maritime arena, as well as design, develop and execute maritime projects
- E. Appreciate the maritime environment for vocations and career options

✓ **Creativity**

- F. Approach and solve basic maritime problems, through both strategic and research methods, and put theoretical knowledge into practical applications in related industries
- G. Develop maritime related risk management strategies.

✓ **Communications**

- H. Communicate shipping and maritime management in policy, strategy, and prevailing issues and requirements in an organization and to achieve good teamwork.
- I. Write professional reports and conduct public speaking confidently

✓ **Character**

- J. Recognise the importance of a strong and just leadership, comply to ethical standards, and uphold highest standards of integrity as a professional

✓ **Civic Mindedness**

- K. Integrate all related skills and knowledge into the industry and exercise due diligence as a highly responsible professional, contributing towards nation and the society.

Formative feedback

Instructors take questions during and at end of lectures, and provide on-the-spot clarifications. You (students) can also confer with instructors at tutorials/discussions, at appointed consultations or via email.

You (students) are assessed on two group projects, each requires submission of a group report and conduct of an in-class presentation. Feedback are given during the presentation and you will be informed of your group's grades.

Learning and Teaching approach

Approach	How does this approach support students in achieving the learning outcomes?
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Lectures	Approach allows students to apply principles and methodologies related to Information Technology (IT) Management, as well as the relationship with other factors (e.g., consumers, disruptive technologies and IT security). This provides students the needed background for outcomes (1) to (6).
Tutorials	Comprises mostly qualitative questions based on short case studies. The tutorials offer students the opportunities to analyse practical problems that address outcomes (1) to (6).

Reading and References

List of readings and references used in the course:

Selected reading from the following books:

1. Kenneth C. Laudon and Carol Guercio Traver (2016), *E-commerce 2016: business, technology, society*, 12th Edition, Global Edition. Pearson Education.
2. Mike Cohen (2005), *Agile Estimating and Planning* Prentice Hall.
3. Bass, Len; Weber, Ingo; Zhu, Liming. *DevOps: A Software Architect's Perspective (SEI Series in Software Engineering)*. Pearson Education.
4. Ying Lowrey (2016). *The Alibaba Way: unleashing grassroots entrepreneurship to build the World's most innovative internet company*. McGraw Hill.
5. Brad Stone (2013). *The Everything Store: Jeff Bezos and the age of Amazon*. Bantam Press.
6. Martin Fowler (2003). *UML Distilled: A Brief Guide to the Standard Object Modeling Language* (3rd Edition). Addison-Wesley Professional
7. Kim, W. Chan and Renée Mauborgne. (2005) *Blue ocean strategy: how to create uncontested market space and make the competition irrelevant*. Harvard Business School Press.
8. Gary Hamel and C.K. Prahalad. (1996). *Competing for the Future*. Harvard Business Review Press.
9. Goldratt, E.M., 1947-2011. (2004). *The Goal: a process of ongoing improvement*. Great Barrington, MA :North River Press,
10. Hammer, M. (1997). *Beyond Reengineering: How the Process-centered Organization Is Changing Our Work and Our Lives*. HarperBusiness.
11. Davenport, T.H. (1992). *Process Innovation: Reengineering Work Through Information Technology*. Harvard Business School Pres.

Course Policies and Student Responsibilities

(1) General

You are expected to contribute significantly and collaborate well with your teammates in the team projects. You are expected to take responsibility to follow up with course notes, assignments and course related announcements. You are expected to participate in class discussions and activities.

(2) Absenteeism

Valid reasons include falling sick supported by a medical certificate and participation in NTU's approved activities supported by an excuse letter from the relevant bodies. There will be no make-up opportunities for in-class activities.

Academic Integrity

Good academic work depends on honesty and ethical behaviour. The quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honour Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values.

As a student, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at NTU. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, collusion and cheating. If you are uncertain of the definitions of any of these terms, you should go to the [academic integrity website](#) for more information. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.

Course Instructors

Instructor	Office Location	Phone	Email
Goh Chong Minsk	N.A.	N.A.	N.A.
Velusamy Mathivanan	N.A.	N.A.	N.A.

Planned Weekly Schedule

Week	Topic	Course LO	Readings/ Activities
1	The introduction of the course and approach with a brief on evolution of IT	1	Lectures
2	Software development – Various approaches with pros and cons	2	Tutorial and lectures
3	E-commerce – Introduction	3	Tutorial and lectures
4	E-commerce Infrastructure	3	Tutorial and lectures
5	E-commerce security and payment services	3	Tutorial and lectures
6	E-commerce marketing and advertising (including social, mobile and local marketing)	3	Tutorial and lectures

Week	Topic	Course LO	Readings/ Activities
7	Group project presentation	1-3	Tutorial and lectures
8	Building an IT strategy that aligns with corporate business strategy	4	Tutorial and lectures
9	Business Process Re-engineering (BPR) and Disruptive Technologies – Practical and Game Changing approach	5	Tutorial and lectures
10	Building world class business systems	4, 5	Tutorial and lectures
11	B2B E-commerce (Globalisation – IT Application in Supply Chain Management, Logistics and Trade)	4, 5	Tutorial and lectures
12	Large-scale IT projects – factors influencing success and failures	6	Tutorial and lectures
13	Group project presentation	4-6	Tutorial and lectures

Appendix: Group Projects with In-Class Presentations (20% each)

The topics for Project 1 covers ILO 1-3 while those in Project 2 covers ILO 4-6 (each project carries weightage of 20%). In each project, you (student) will write a group report and present your findings during class. The assessment is covered by the following marking scheme. More details of the report length and specific requirements will be briefed by the course instructor.

Criteria	Good (8-10)	Ave (6-7)	Fair (4-5)	Poor (1-3)	Remarks
Report generated by Turnitin	Within acceptable degree of originality? (Yes/No)				Fresh report, in case of too many commonalities.
Background/ Objective/ Purpose					Accurate contextualisation of background and description. Well defined issues; clear objectives.
Methodology/ Information / Data Collection					Ability and independence in acquiring relevant information/data for the study. Good information/data visualisation, as provided in Appendices of report.
Results and Discussion					Well-presented results with discussion, showing ability to understand problem, interpret information obtained, and be cognisant of imitations.
Conclusions and Recommendations					Summarise report clearly and show ability to make appropriate and

					relevant conclusions, with clear and workable recommendations.
References and Report Format					Report is clear and concise; good grammar and spelling with appropriate tables/ graphs/ figures. Report is presented well with logical sequence.
Peer Evaluation for Group Work					Peer evaluation to ensure individual member's contribution to project. Criteria include the following: <ul style="list-style-type: none"> i. Attends group meetings regularly and arrives on time. ii. Contributes meaningfully to group discussions. iii. Completes group assignments on time. iv. Prepares work in a quality manner. v. Demonstrates a cooperative and supportive attitude. vi. Contributes significantly to the success of the project.