

# UNIVERSITAS INDONESIA FACULTY OF ECONOMICS AND BUSINESS DEPARTEMENT OF ACCOUNTING UNDERGRADUATE PROGRAM

### **SYLLABUS**

# MANAJEMEN TEKNOLOGI INFORMASI

## (INFORMATION TECHNOLOGY MANAGEMENT)

### ECAU607302

# **ODD SEMESTER 2020/2021**

No.	Lecturers	E-mail			
1	Tubagus Muhamad Yusuf Khudri S.E., M.T.I., CA.	yusufkh@ui.ac.id			

Subject Code	ECAU607302					
Subject Title	Information Technology Management					
Credit Value	3					
Year	4					
Pre-requisite/	None					
Co-requisite/						
Exclusion						
Role and Purposes	This course aims to provide students with an understanding of strategic, tactical,					
	and operational aspects in managing information system / information technology					
	in entity					
Subject Learning	Upon completion of the subject, student will be able to:					
Outcomes	a. Understand the roles of information system/ information technology within					
	an organization, on strategic, tactical, and operational levels					
	b. Understand the roles of information system / information technology in					
	functional integration, as well as resources integration within an organization					
	c. Understand the ability of information system / information technology in					
	improving organization's capabilities in doing business					
	d. Understand the roles of CIOs/IT Managers in terms of coordination,					
	partnership, technology, human resources, communication governance, and					
	measurement					

Subject Synopsis/	Week	Topic	LO	References
Indicative Syllabus	#			
	1	Class Management - Groups.	a, b	
		Introduction		Applegate, Austin, & Soule (2009) - Introduction
		Business Model Canvass		https://www.strategyzer.com/books https://canvanizer.com/how-to- use/business-model-canvas- tutorial https://www.youtube.com/ watch?v=dtf61YDCXDY
		cognitiveclass.ai - Introduction to Cloud & youracclaim.com		https://cognitiveclass.ai/ courses/introduction-to-cloud
		Small Group Discussion on Carr (2003)		Carr (2003)
	2	IT & Business Advantage	a, b	Applegate, Austin, & Soule (2009) - Chapter 1,2,3,4
				Lal & Bharadwaj (2016)
				Shee et al., (2018)
	3	Discussion 1	a, b	Group Presentation  1. Applegate, Austin, & Soule (2009) – Case I-1: IBM's Decades of Transformation: Turnaround to Growth
				2. DNC-01
	4	Discussion 2	a, b	Group Presentation  1. Applegate, Austin, & Soule (2009) – Case 1-2 Amazon.com: The Brink of Bankruptcy
				2. DNC-02
	5	The Business of IT	a, b	Applegate, Austin, & Soule (2009) - Ch 5,6,7,8
·		Well Architected Framework & Cloud Discussion		WAS INDO

Page 2 of 8

6	Discussion 3	a,	Group Presentation
	Discussion 5	b	<ol> <li>Applegate, Austin, &amp; Soule         <ul> <li>(2009) – Case 1- 3 Canyon</li> <li>Ranch</li> </ul> </li> <li>DNC-03</li> </ol>
7	Discussion 4	a, b	Group Presentation  1. (Applegate, Austin, & Soule (2009) – Case 2 - 2 The iPremier Company (A): Denial of Service Attack  2. DNC-04
8	IT Leadership	c, d	Applegate, Austin, & Soule (2009)  — Chapter 9,10  Bahan Diskusi: (Al-Harthi & Emam, 2017;  Athukorala, Perera, &  Meedeniya, 2016; I. McCulloh, J.  Burck, J. Behling, M. Burks, & J.  Parker, 2018; Liu et al., 2018;  Mahmood, Nayyar, & Mushtaq,  n.d.; Meiryani, Handoko, Sabrina,  & Hendra, 2017; Nichols, 2016;  Saide et al., 2017; Williams,  2016; Zimmermann, Petrikina, &  Schroder, 2016)
9	Discussion 5	c, d	Applegate, Austin, & Soule     (2009) — Case 3-2 -     Volkswagen of America:     Managing IT Priorities     DNC-05
10	IT Audit & IT Evaluation	c, d	Diane, James, & D Jordan, 2008; Eardley, Shah, & Radman, 2008; Janvrin, D., Bierstaker, J., & Lowe, D. J. (2008), Karadag, Cobanoglu, & Dickinson, 2009; Seong Leem, Wan Kim, Jung Yu, & Ho Paek, 2008; Shiau, Hsu, & Wang, 2009; Skrynkovskyy, 2018)
11	Discussion 6	c, d	<ol> <li>Applegate, Austin, &amp; Soule         (2009) – Case 3-3 The AtekPC             Project Management Office     </li> <li>DNC-06</li> </ol>
12	Big Case Presentation	c, d	Big Case Group Presentation
		1	D'- C C D
13	Big Case Presentation	c, d	Big Case Group Presentation

Teaching/Learning Methodology Lectures cover core principles and concepts of the subject syllabus. To enhance students' understanding of relevant concepts through various kinds of student's centered activities, including case studies, presentation and discussion.

Page 3 of 8

M STUDE 5

	regulation.							
Assessment Method in Alignment with Intended Learning	Specific Assessment Methods/Tasks	% Weighting	Int Outco					
Outcomes			а	b	С	d		
	Continuous Assessment	100 %						
	GROUP	30%						
	Group Presentation 1: Discussion Case (15%)		√	√				
	Group Presentation 2: Big Case (15%)				√	√		
	INDIVIDUAL	70%		ļ , , , , , , , , , , , , , , , , , , ,				
	Mid Term Exam (25%)		√	√				
	Final Exam (25%)				√	√		
	Self paced study on cognitiveclass.ai - Cloud Core (10%		V	√	√	<b>√</b>		
	Participation and Discussion (10%)		V	√	√	√		
Student Study								
Effort Expected	Class Contacts							
	Lectures							
	Presentation Other student study effort							
	Preparation for dis						25 Hours	
	Preparation for pro		nt/tests				25 Hours	

Reading List and References	Required Readings:
	Text Book:
	<ul> <li>a. Applegate, L. M., Austin, R. D., &amp; Soule, D. (2009). Corporate Information Strategy and Management: Text and Cases (8th ed.). McGraw-Hill.</li> <li>b. Castillo, F. (2016). Managing Information Technology (1st ed.). Springer</li> </ul>
	International Publishing.

Page 4 of 8

### Journals / Conference Proceeding / Articles:

a. Carr, N. G. (2003). IT Doesn't Matter. Harvard Business Review, 81(5), 41–49

### **IT & Business Advantages**

- a. Lal, P., & Bharadwaj, S. S. (2016). Understanding the impact of cloud-based services adoption on organizational flexibility: An exploratory study. *Journal of Enterprise Information Management*, 29(4), 566–588. https://doi.org/10.1108/JEIM-04-2015-0028
- b. Shee, H., Miah, S. J., Fairfield, L., & Pujawan, N. (2018). The impact of cloud-enabled process integration on supply chain performance and firm sustainability: The moderating role of top management. Supply Chain Management: An International Journal, 23(6), 500–517. https://doi.org/10.1108/SCM-09-2017-0309

### **IT Leadership**

- a. Al-Harthi, A. S. A., & Emam, M. (2017). Leadership of technology in inclusive practice. In 2017 6th International Conference on Information and Communication Technology and Accessibility (ICTA) (pp. 1–4). Muscat, Oman: IEEE. https://doi.org/10.1109/ICTA.2017.8336021
- b. Athukorala, C., Perera, I., & Meedeniya, D. (2016). The impact of transformational and transactional leadership styles on knowledge creation in Sri Lankan software industry. In 2016 Moratuwa Engineering Research Conference (MERCon) (pp. 309–314). Moratuwa, Sri Lanka: IEEE. https://doi.org/10.1109/MERCon.2016.7480159
- c. I. McCulloh, J. Burck, J. Behling, M. Burks, & J. Parker. (2018). Leadership of Data Annotation Teams. In *2018 International Workshop on Social Sensing* (SocialSens) (pp. 26–31). https://doi.org/10.1109/SocialSens.2018.00018
- d. Liu, C., Ready, D., Roman, A., Van Wart, M., Wang, X., McCarthy, A., & Kim, S. (2018). E-leadership: an empirical study of organizational leaders' virtual communication adoption. *Leadership & Organization Development Journal*, *39*(7), 826–843. https://doi.org/10.1108/LODJ-10-2017-0297
- e. Mahmood, K., Nayyar, Z., & Mushtaq, H. (n.d.). Role of Transformational Leadership on E- Government Switching: Multi-Channel and Digital Divide (p. 4).
- f. Meiryani, Handoko, B. L., Sabrina, S., & Hendra, E. (2017). The influence of leadership styles on accounting information systems quality and its impact on information quality survey on state-owned enterprises. In 2017 IEEE 17th International Conference on Communication Technology (ICCT) (pp. 1989–1993). Chengdu: IEEE. https://doi.org/10.1109/ICCT.2017.8359977
- g. Nichols, A. L. (2016). What do people desire in their leaders? The effect of leadership experience on desired leadership traits. *Leadership &*

M

Page 5 of 8

- *Organization Development Journal*, *37*(5), 658–671. https://doi.org/10.1108/LODJ-09-2014-0182
- h. Saide, Trialih, R., Indrajit, R. E., Putri, A., Fazri, P. N., & Hafiza, W. (2017). The influence of information technology infrastructure and leadership style on knowledge management implementation. In *2017 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM)* (pp. 186–190). Singapore: IEEE. https://doi.org/10.1109/IEEM.2017.8289877
- i. Williams, J. (2016). IT Leadership Is Morphing. *IT Professional*, *18*(2), 71–72. https://doi.org/10.1109/MITP.2016.29
- j. Zimmermann, K., Petrikina, J., & Schroder, N. (2016). The CIO Leadership Mosaic -- Results from a Qualitative Survey in the Silicon Valley and San Francisco Bay Area. In 2016 49th Hawaii International Conference on System Sciences (HICSS) (pp. 4891–4900). Koloa, HI, USA: IEEE. https://doi.org/10.1109/HICSS.2016.607

### **IT Audit and IT Evaluation**

- c. Eardley, A., Shah, H., & Radman, A. (2008). A model for improving the role of IT in BPR. *Business Process Management Journal*, *14*(5), 629–653. https://doi.org/10.1108/14637150810903039
- d. Janvrin, D., Bierstaker, J., & Lowe, D. J. (2008). An Examination of Audit Information Technology Use and Perceived Importance. *Accounting Horizons*, 22(1), 1–21. <a href="https://doi.org/10.2308/acch.2008.22.1.1">https://doi.org/10.2308/acch.2008.22.1.1</a>
- e. Karadag, E., Cobanoglu, C., & Dickinson, C. (2009). The characteristics of IT investment decisions and methods used in the US lodging industry. *International Journal of Contemporary Hospitality Management*, *21*(1), 52–68. https://doi.org/10.1108/09596110910930188
- f. Seong Leem, C., Wan Kim, B., Jung Yu, E., & Ho Paek, M. (2008). Information technology maturity stages and enterprise benchmarking: an empirical study. *Industrial Management & Data Systems*, 108(9), 1200– 1218. https://doi.org/10.1108/02635570810914892
- g. Shiau, W., Hsu, P., & Wang, J. (2009). Development of measures to assess the ERP adoption of small and medium enterprises. *Journal of Enterprise Information Management, 22*(1/2), 99–118. https://doi.org/10.1108/17410390910922859
- h. Skrynkovskyy, R. M. (2018). An it Audit as a Tool for Strategic Enterprise Management. *Problemy Ekonomiky*, (1), 231–236.

### Videos:

- Discovery Channel Nerve Center The Grand Central Terminal. (DNC01)
- Discovery Channel Nerve Center Cedar Point Amusement Park. (DNC02)
- Discovery Channel Nerve Center DC Fire and EMS. (DNC03)
- Discovery Channel Nerve Center Panama Canal. (DNC04)
- Discovery Channel Nerve Center Four Seasons Hotel. (DNC05)
- Discovery Channel Nerve Center The Channel Tunnel (DNC06)

Page 6 of 8

# Class Management

Discussion on Managing Information Technologies topics will be conducted in session: 1,2,3,4,5,6,7,8,9,10 and 11.

For sessions: 3,4,6,7,9 and 11, will be started with 4 groups to give presentation predetermined cases from book and video.

For **video based cases**, the presentation must include:x

- 1. Short Description (minimal 150 words) about the entity featured in video.
- 2. Short description (minimal 150 words) about the business of the entity featured in video
- 3. Business Model, using Business Model Canvas, (http://https://www.strategyzer.com/canvas/business-model-canvas). Give minimum 150 words description for each element (
- 4. Information System / Information technology components (hardware, software, human resources, etc.) and their cost, and benefit to the elements of the business model canvas that identifiable from the video.
- 5. Action / events / things that showed on the video, that your group concluded it should not happen or done because it's not the best practice.
- 6. Give your analysis and suggestion, about the current information system/information system that available on the market and also feasible to be implemented that can helped the entity to overcome the problem that it might have or can help seize the new opportunity. (e.g. cloud computing, big data, software as a service, artificial intelegent, market place, fintech, etc.)
- 7. Propose a solution with graphical diagram of cloud architecture how can the company be more ready for embracing Industry Revolution 4.0 and embracing Society 5.0 ?
- 8. The presentation time must not exceed 30 minutes.
- 9. The file needed for submission only in pdf format of powerpoint slides presentation

For text book cases, the presentation must include, important points given in cases, and answer to the questions in the cases if any.

For sessions, number 1,2,5 discussion will be conducted on specific topics

The link of to download video will be given by the lecturer.

For **Big Case**, presentation on session 12,13,14

- 1. Real Company or entity, must not reside in campus or have any affiliation with Universitas Indonesia.
- 2. Categorized as Micro or SME or Cooperative
- 3. History of the company / entity
- 4. Diagram and description of: Ownership and Organization Structure
- 5. Business Model, using Business Model Canvas, (http://https://www.strategyzer.com/canvas/business-model-canvas):

Page 7 of 8

- Give minimum 100 words description for each element and include your analysis about the current system information / information technology used in day to day operation, in the context of each elements of business model canvas.
- 7. Analysis and give suggestions how cloud based information technology can be used to enhance every element listed in the business model canvas. Propose your solution complete with cloud architecture diagram for the company, and calculate the total cost of ownership for minimum of three years, and make proper financial modelling for the company.
- 8. The file needed for submission only in pdf format of powerpoint slides presentation

The self paced study will conducted through online courses on https://cognitiveclass.ai, digital certificate will be verified by lecturer through valid link submitted by student, screen capture or print out to pdf is not acceptable. Student also required to register to https://www.youracclaim.com/ using official student email from Universitas Indonesia. The URL for showing badges from http://cognitveclass.ai on www.youracclaim.com must set up by the student on Acclaim Public URL on the account public profile menu (Setting -> Public Profile -> Acclaim URL).

Name must be updated so as registered in http://academic.ui.ac.id. The link than must be submitted to lecturer to so that your achievment can be scored,

At the https://cognitiveclass.ai. student must complete course "Introduction to Cloud" on (https://courses.cognitiveclass.ai/courses/coursev1:IBMDeveloperSkillsNetwork+CC0101EN+2020T1/course/" and get one certificate (85 of 100), for example :

https://courses.cognitiveclass.ai/certificates/6da1f44794dd40ca8ccb9ff207b56992

To get another 15 points, you have to submit your public url from youracclaim.com, url that shows the badge(s) you have collected from https://cognitiveclass.ai or others The URL will have a format like https://www.youracclaim.com/users/username\_sso\_ui/badges, if the username\_sso\_ui not in this case your name is no longer available you can choose another name, but you need to update your profile picture and full name in https://youracclaim.com. For example https://www.youracclaim.com/users/yusufkh/badges, will redirect your browser to show the page which display badges collection not from cognitiveclass.ai but another insitution as well.

