

1	Name of Course :	Systems and Network Administration										Version Number:	VD1		
	Course Code :	CT106-3-2										Effective Date:	01 Sep 2019		
2	Synopsis :	This module provides an introduction to the principles and practice of systems administration in a corporate networked environment. Students will install and configure the operating system on several virtual machines, configure the systems for various roles (gateway, mailserver, webserver, LDAPserver), configure the essential services, and make enhancements to improve performance, authentication, authorisation, and accounting.													
3	Name(s) of academic staff :	Dr. Thomas, Shounak Ghosh													
4	Semester and Year offered :	See Programme Specification (Module may be delivered on multiple programmes and therefore in different years/semesters)													
5	Credit Value :	3													
6	Prerequisite/co-requisite: (if any)	CT049-3-1 Operating Systems & Computer Architecture and CT043-3-1 Introduction to Networking or equivalent													
7	Course Learning Outcomes (CLO) :	At the end of the course the students will be able to: (example) - explain the basic principles of immunisation (C2, PLO1)													
	CLO1	Explain the role and operation of each of the software components essential to a corporate networked information system (C2, PLO1)													
	CLO2	Evaluate proposed improvements to the configuration of a corporate networked information system and the associated administration policies and procedures (C4, PLO2)													
	CLO3	Integrate DNS, DHCP, email, web, LDAP, SSL to create a working system (A4, PLO6)													
	CLO4	Combine new elements into the basic system to meet the needs of diverse communities of interest (A4, PLO4)													
8	Mapping of the Course Learning Outcomes to the Programme Learning Outcomes, Teaching Methods and Assessment : Please select the learning outcome Domain(LOD) for each PLO in the cells above it. E.g PLO1- Knowledge and Understanding, PLO2- Cognitive Skills, PLO3-Practical Skills														
	Course Learning Outcomes (CLO)	Programme Learning Outcomes (PLO)												Teaching Methods	Assessment
		Knowledge and Understanding	Cognitive Skills	Practical Skills	Interpersonal Skill	Communication skill	Digital Skills	Numeracy Skills	Leadership, autonomy and responsibility	Personal Skills	Entrepreneurial Skills	Ethics and professionalism			
		PLO1	PLO2	PLO3	PLO4	PLO5	PLO6	PLO7	PLO8	PLO9	PLO10	PLO11	PLO12		
	CLO 1	✓												Lecture	Final Exam
	CLO 2		✓											Lecture	Final Exam
	CLO 3						✓							Tutorial	Individual Work
	CLO4				✓									Case Study	Group Assignment
Indicate the relevancy between the CLO and PLO by ticking "✓" the appropriate relevant box. (This description must be read together with Standards 2.1.2, 2.2.1 and 2.2.2 in Area 2 - pages 16 & 18)															
9	Transferable Skills (if applicable) (Skills learned in the course of study which can be useful and utilized in other settings)	1	Cognitive Skills,												
		2	Digital Skills,												
		3	Interpersonal Skill,												
		4													
		5													
10	Distribution of Student Learning Time (SLT)														
	Course Content Outline	CLO*	Teaching and Learning Activities								Independent Learning (NF2F)	SLT			
Guided Learning (F2F)				Guided Learning (NF2F) eg: e-learning											
L			T		P	O									
	Essential services: operation and protocols	1	7						7	14					
	Protecting servers and services	2	7						7	14					
	Policy-based System Administration	2	7						7	14					
	Practical strategies for systems administrators	2	7						7	14					
	Configuring essential services *	3		5					5	10					
	Case Study: Configuring security *	4		3					9	12					
	Case Study: Enhanced service configuration *	4		6					16	22					
										0					
										0					
	*To be conducted in lab									0					

								0
								0
								0
								0
								0
<b>Total</b>								<b>100</b>
Continuous Assessment		Percentage (%)	F2F	NF2F	SLT			
1	Individual Work (Week 7) - Individual Base System Demo	10	1	3	4			
2	Group Assignment - 1500 words - Individual Component (10%) - Group Component (25%)	35		8	8			
3					0			
4					0			
5					0			
6					0			
7					0			
<b>Total</b>								<b>12</b>
Final Assessment		Percentage (%)	F2F	NF2F	SLT			
1	Final Exam	55	2	6	8			
2					0			
3					0			
4					0			
5					0			
<b>Total</b>								<b>8</b>
<b>**Please tick (✓) if this course is Latihan Industri/ Clinical Placement/ Practicum/ WBL using Effective Learning Time (ELT) of 50%</b>				<input type="checkbox"/>		<b>GRAND TOTAL SLT</b>		<b>120</b>
<i>L = Lecture, T = Tutorial, P= Practical, O= Others, F2F=Face to Face, NF2F=Non Face to Face</i> <i>*Indicate the CLO based on the CLO's numbering in Item 8.</i>								
11	Identify special requirement to deliver the course (e.g: software, nursery, computer lab, simulation room, etc)							
12	References :(include required and further readings, and should be the most current)	Essential Reading Shotts, W. (2019). <i>The Linux Command Line, A Complete Introduction. 2nd Edition.</i> NoStarch Press. ISBN 9781593279523 Ross, A. (2019). <i>Ultimate Linux Newbie Guide</i> . OpenTech ICT Solutions <a href="https://linuxnewbieguide.org/product/the-ultimate-linux-newbie-guide-ebook-2019/">https://linuxnewbieguide.org/product/the-ultimate-linux-newbie-guide-ebook-2019/</a> Tevault, D.A. (2018). <i>Mastering Linux Security and Hardening</i> . Packt Publishing. ISBN 9781788620307						
13	Other additional information :	None						