

Module designation	CE542 System Administration		
Semester(s) in which the module is taught	5		
Person responsible for the module	Dareen Kusuma Halim		
Language	English & Indonesian		
Relation to curriculum	Compulsory		
Teaching methods	Demonstration		
Workload (incl. contact hours, self-study hours)	Total workload: 90.72 hours - 23.34 hours of synchronous lecture & demonstration. - 56.04 hours of self-study and assignments in the form of mini projects. - 11.34 hours related to exam and self study		
Credit points	2 SKS (3.36 ECTS)		
Required and recommended prerequisites for joining the module	Required: - CE449 Computer Networks		
Module objectives/intended learning outcomes	Course Learning outcome	Related ELOs	
		ELO	Performance Indicator
	Able to perform resources and services management in Linux operating system using various available interfacing tools	H	Ability to design network infrastructure based on the understanding of operating systems and computer security in server management.
	Able to troubleshoot problems that arise in operating system management	H	Ability to design network infrastructure based on the understanding of operating systems and computer security in server management.
Able to perform server infrastructures provision in Linux operating system.	I	Ability to develop and integrate software and hardware as scalable distributed systems that incorporate various device types for the purpose of solving engineering problems.	
Content	This course teaches principles of instrumentation and interfacing, from the system overall design, signal conversion,		

	<p>sensors, user inputs, control methods, to the system outputs. Inter-devices communication protocols are also discussed.</p> <p>Mata kuliah ini berfokus pada administrasi sistem operasi mulai dari instalasi, konfigurasi layanan, dan pemeliharannya. Melalui mata kuliah ini mahasiswa dibekali dengan kemampuan mengelola layanan pada server berbasis Linux. Materi di mata kuliah ini didasarkan pada modul dari Red Hat Academy, RH124 System Administration I dan RH134 System Administration II.</p> <p>This course teaches operating system administration in a Linux-based environment, starting from installations, basic file system management, services configuration, and maintenance. The course materials are based on Red Hat Academy modules, RH124 System Administration I and RH134 System Administration II.</p> <p>Specifically, this course contain these topics:</p> <ol style="list-style-type: none"> 1. Introduction to Linux Enterprise 2. Essential tools & File Management 3. User-Group Management & Configuring Networking 4. Configuring Permissions 5. Managing Processes & Services 6. Managing Software & Scheduling Tasks 7. Logging & Troubleshooting 8. Managing Partitions 9. Basic Kernel & Boot Procedure Management 10. Configuring Basic Apache Server 11. Configuring Firewall & SELinux Management 12. Configuring Remote Mounts 13. Configuring FTP Server & Time Services 14. Basic Shell Scripting
Examination forms	Project
Study and examination requirements	<p>Total score ≥ 55 must be satisfied.</p> <p>The total score is the weighted average of the assignments (30%), the midterm exam (30%), and the final exam (40%).</p>
Reading list	<ol style="list-style-type: none"> 1. RH124 System Administration I module (and student handbook) from https://rha.ole.redhat.com 2. RH134 System Administration II module (and student handbook) from https://rha.ole.redhat.com 3. Van Vugt (2023). Red Hat RHCSA 9 Cert Guide: EX200 (Certification Guide). Pearson IT Certification